




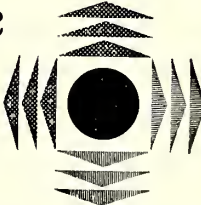
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**CHEMIST AND DRUGGIST**

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OCTOBER 29 1960



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250 tablets	40.-	70'-
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# The CHEMIST AND DRUGGIST

Volume 174

OCTOBER 29, 1960

No. 4211

## Cosmetics for Russia RECIPROCITY OF CONSIGNMENTS

WHAT is believed the first consignment of cosmetics to Russia from the United Kingdom since the war has been sent by Boots Pure Drug Co., Ltd., Station Street, Nottingham.

It includes lipsticks, face powder and cold cream and is valued at "several thousand" pounds. The company have received a reciprocal consignment of Russian perfumes and cosmetics, equal in value to the British shipment, for sale through their retail branches.

## Fire-fighting Equipment

### EFFECT OF NEW FACTORIES ORDER

OWNERS and occupiers of more than 220,000 factories in Britain which are subject to the Factories Acts have to provide adequate fire-fighting equipment from December 1. That is one effect of an Order made by the Minister of Labour and published on October 11 bringing the fire provisions of the Factories Act, 1959, into operation on that day. The Order also brings into force a provision requiring fire alarms to be installed in about 10,000 more factories than are at present required to have them, and for the testing and examination of those alarms periodically — normally at least once every three months. Other important provisions of the Act which become effective are those transferring from district councils to fire authorities the duty of ensuring that certain factories have adequate means of escape, and empowering fire brigade officers to enter factories when authorised by a factory inspector, for the purpose of assisting the inspector on fire matters, and enabling the Minister of Labour to make regulations about fire prevention and fire fighting.

## Essence Manufacturers

### CHANGES OF OFFICERS

MR. Eric L. Bush (of W. J. Bush & Co., Ltd.) has been elected chairman of the British Essence Manufacturers' Association and of the Essence Export Group in succession to Mr. F. G. Pentecost (A. Boake, Roberts & Co., Ltd.), who is reducing his commitments after serving as vice-chairman since 1949 and chairman since 1954 of the two organisations. At a luncheon given recently in Mr. Pentecost's honour, the executive committees of the two organisations paid tribute to his outstanding services to the industry and presented him with an oil painting as a token of

their respect and esteem. Mr. R. D. F. Marlow, who has been appointed assistant director-general of the Institute of Directors with effect from November 1 has resigned from the secretaryships of the British Aromatic Compound Manufacturers' Association, the British Essence Manufacturers' Association and the Essence Export Group. He is succeeded by Mr. F. T. Atkins, who will also take over Mr. Marlow's executive responsibilities in connection with the Essential Oil Importers' Section of the London Chamber of Commerce.

## Pharmaceutical Society

### EXAMINATION RESULTS

THE following candidates were successful in the Intermediate examination (old regulations) held by the Pharmaceutical Society in Scotland in September:—

BITTLESTONE, Judith, Durham; CLARENCE, Helen W., Stocksfield-on-Tyne; HARRIS, J., Birtley; LISTER, Pamela, Whitehaven; MORGAN, V., Sunderland; MURRAY, J., Boldon Colliery; ROBERTS, S. J., Penrith.

The following were successful in Part I of the Pharmaceutical Chemist Qualifying examination (new regulations) held by the Pharmaceutical

Society in Scotland in September (A= pharmacognosy I; B= pharmaceutical chemistry I; C= physiology):—

BETT, J. M. (C), St. Monance; DURBIN, Josephine C. R. (A, C), Aberdeen; JUSTICE, Doreen C. (A), Aberdeen; MACFADYEN, I. R. (A), Dundee; PRATT, I. G. (B), Keith; SMITH, I. M. (A, B), Newmachar.

## Exporting to Europe

### A NEW COUNCIL SET UP

THE formation of a new Export Council for Europe, to be organised on the same lines as the Dollar Exports Council, was announced on October 20. It is to be headed by Sir William McFadzean (president, Federation of British Industries). Another measure announced to aid exporters is that the Export Credits Guarantee Department is to insure credit on longer terms than the normal maximum in certain special cases.

## International Quarantine

### DISTRIBUTION OF DISEASE

ALTHOUGH there have been notable improvements in the amount of illness and incidence of deaths from quarantinable diseases in the past four years (1956-60), foci of infection and distribution of those diseases throughout the world have changed little. According to information assembled for the committee on international quarantine of the World Health Organisation, which met in Geneva, October 17-22, the present situation of the six quarantinable diseases is as follows:—*Cholera*: Usually present only in East Pakistan and some parts of India and neighbouring states, the disease also appeared in 1960 in Burma, West Pakistan and



PRIZE-WINNERS AT NICE: Prize-winners in the Tweed window-display competition, 1960, organised by Lenthéric, Ltd., 17 Old Bond Street, London, W.1, with their host and hostess Eric Greenstreet (sales director) and Mrs. Greenstreet; and French friends of the company on the airport terrace overlooking the Mediterranean at Nice. (See C. & D., August 6, p. 157.)

Afghanistan. *Plague*: Many foci of wild rodent plague still persists in Asia, Africa and the Americas. Nevertheless annual averages of deaths from the disease dropped from 170,300 in the years 1919-28, to less than 200 in the 1954-58 period. In 1959 a total of only eighty-three deaths was registered in ten countries of those continents. *Smallpox*: India and East Pakistan continue to be the main focus. In 1958 they accounted for 218,000 cases out of the world total of 242,000. In 1959 the figures fell to about 50,000 out of 74,000. More than any other disease, smallpox is liable to be imported, especially by air, into countries normally free of it. *Yellow fever*: In spite of the continuing increase in air traffic, yellow fever has not spread outside Africa and America. It exists principally as jungle yellow fever which affects monkeys and is rarely contracted by man. The annual number of cases is now low, although an epidemic occurred at the end of 1959 in parts of Ethiopia and in the Blue Nile and Upper Nile provinces of the Sudan, where at least 118 cases were notified with eighty-seven deaths. *Typhus*: Contrary to general belief, typhus is not regressing in Africa, the Federation of Ethiopia and Eritrea now being the principal focus. In the Americas, the improvement in the situation is constant and cases dropped from 25,000 a year in 1946-50 to 7,500 in 1956-60. A similar situation may be observed in Asia since the Korean War, although national statistics are incomplete. Since the end of the Second World War there has been a considerable reduction in the number of cases registered in Europe, and although no figures are available for the U.S.S.R., non-official reports indicate that the disease has almost disappeared there. *Relapsing fever*: Since the introduction of modern insecticides, it is an easy matter to prevent relapsing fever, which is transmitted by lice and ticks. Since 1949 the only cases notified in Europe were two in Northern Ireland in 1956. In the Americas, there were two doubtful cases, and hardly any in Asia. Although in Africa the number of cases seems to be on the increase the disease does not constitute a serious problem except in the Federation of Ethiopia and Eritrea.

## Milk Composition

### PROPOSALS TO PROMOTE IMPROVEMENTS

PROPOSALS to raise the food value of milk were made in the report of the Cook Committee on the Composition of Milk, published on September 21 under the title "Milk Composition in the United Kingdom" (Cmd. No. 1147). The adoption of certain of the Committee's recommendations would require changes in the law, and the Government departments concerned are now considering the report in detail and seeking the views on it of representative organisations. The committee's main conclusions include the following:—The consumption of milk solids other than fat (known collectively as s.n.f.), at least by some groups of the population, should be increased. Changes in the fat content of milk are

not recommended; the evidence of a link between either atheroma or coronary disease and milk fat is regarded as suggestive, but not conclusive. A close examination of the available records shows that both fat and s.n.f. contents of milk have been declining gradually over the past thirty years in England and Wales, though they have remained comparatively static in Scotland. The belief is expressed that most milk producers could improve the composition of their supply by changes in herd management if given a sufficient incentive to do so, and that the dairying industry should seek to improve the s.n.f. content of the milk supply. As a first step, the Milk Marketing Boards should pay less than the normal price for supplies deficient in s.n.f. To enable that to be done, the composition of milk supplies from farms would need to be tested regularly by the dairy or dépôt to which they were first consigned. Measures taken by the Milk Marketing Boards should lead to a general improvement in milk composition, and it should be possible within ten years to prohibit the retail sale of whole milk containing less than 3 per cent. fat or 8.5 per cent. s.n.f.

## Hospital Building

### EXPANDING PROGRAMME TO CONTINUE

THERE are now over 180 major hospital schemes in England and Wales, each costing over a quarter of a million pounds, at various stages of building or planning. That illustration of the increasing tempo of hospital building was given by Miss Edith Pitt (Parliamentary Secretary, Ministry of Health) when she visited the new West Cumberland Hospital, Hensingham, near Whitehaven, on September 22. She said that the considerably expanded, and still expanding, programme, covering both the construction of new hospitals and the modernisation and extension of existing ones, was now evident in many parts of the country. Included in the 180 major schemes chosen by the Minister were thirty-four new hospitals (including the West Cumberland) of which nine were partially completed, eight had been started, and seventeen were at various stages of planning. Two new dental hospitals were also being planned. The new West Cumberland Hospital, of which the second stage of ward accommodation providing 100 new beds has been in use since last December, will eventually have 416 additional beds.

## IRISH NEWS

### THE REPUBLIC

## Hospital Pharmacists

### SALARY RISE SOON ?

"HOSPITAL pharmacists are poised on the threshold of better things, and if all goes well, I anticipate that we shall be able to report to members in the near future that a salary scale commensurate with our skill and responsibility will be introduced." That was stated by Mr. R. J. Power (chairman) at the annual meeting of the Association of Hospital and Public Pharma-

cists, held in Dublin on October 16. Stating that professional status could be improved only by the implementation of a proper salary scale, the chairman outlined the ways and means by which it was hoped to have such a scale introduced shortly. He said that in order to ensure that the Association's efforts met with complete success, it was essential that they should have a 100 per cent. membership, and he appealed to all members to take an active interest in the work of the organisation so that they could enter into future negotiations secure in the knowledge that they had the support of the entire body of hospital pharmacists. Mr. Power was re-elected *Chairman*, and Mr. P. Fahey was elected *Vice-chairman*. Miss Anne McCarthy was elected *Secretary* to replace Miss J. L. Burke who asked to be relieved of office due to pressure of business. Tributes were paid to the efficient manner in which Miss Burke had discharged her duties during the year. Mrs. E. V. Browne was elected *Treasurer*. The following were elected to the committee, Mrs. P. Darcy, Mrs. M. Toomey, Mrs. M. Somers, Miss J. L. Burke, Messrs. D. O'Shea, M. Lohan, R. Daly, P. J. Nolan, J. Roche, P. M. Browne, and P. Fullam. Mr. J. J. Coffey said he would like to see a few more general meetings of the Association being held during the year and other members spoke in favour of having more meetings in the provinces. Commandant B. J. Anderson reported on the progress made by the committee set up to investigate the possibility of establishing a representative pharmaceutical association (see *C. & D.*, October 22, p. 494). The chairman said that the aims of the committee had the approval of the Association which wished it the best of luck. It was decided to hold the next meeting in Thurles.

## Benevolent Fund

### ANNUAL DANCE ARRANGEMENTS

THE annual dance of the Benevolent Fund of the Pharmaceutical Society of Ireland—always a great social success—is to be held in the Gresham hotel, Dublin, on December 6. An energetic committee are working to ensure that the function not only equals those of previous years, but eclipses them. Tickets (25s. each) may be procured from any of the following members of the Committee: Messrs. A. Digan, Sutton; D. Costello, Drumcondra; C. Conefrey, Pearse Street; and Miss E. Smith, 2 Emmet Road, Kilmaham. Tables are bookable at the hotel on production of the dance tickets. Subscriptions to the Fund addressed to any member of the Committee, or c/o College of Pharmacy, 18 Shrewsbury Road, Dublin, will also be gratefully acknowledged.

## IRISH BREVITIES

### THE REPUBLIC

THE annual meeting of the pharmacy branch of St. Joseph's Young Priests' Society is being held at 23 Merrion Square, Dublin, at 8 p.m. on November 15.

## THE NORTH

NEW Statutory Rules and Orders have been issued amending the Northern Ireland poisons legislation. They are the Poison List (Amendment) Order (Northern Ireland), 1960 and the Poisons Amendment Regulations (Northern Ireland) 1960. Both took effect on October 1.

THE annual carnival dance in aid of the Northern Ireland Chemists' Benevolent Fund is being held at the Orpheus ball-room, Belfast, on November 10. Including supper the cost is 15s. 6d. each and tickets are available from the secretary of the Pharmaceutical Society of Ireland, 73 University Street, Belfast, 7, and the secretary of Ulster Chemists' Association, 4, Waring Street, Belfast, 1.

## NEWS IN BRIEF

THE official index of retail prices at September 13 was 110.5 compared with 110.4 in August (January 17, 1956 = 100).

THE Scientific Instrument Manufacturers' Association have chosen "Productivity" as the main theme of their ninth convention, to be held at Eastbourne, November 17-20.

THE Executive Council of the Soke of Peterborough is to ask the Minister of Health to investigate complaints about the lack of pharmacies in the outer fringes of Peterborough.

A LIST of periodicals held in the library of the Chemical Society, Burlington House, London, W.1. is available, price 5s., post free, to those who use the library and to librarians of other institutions.

A COMPETITION for grants from the research fund of the Chemical Society are to be considered in November, and should be submitted not later than November 15. Forms of application may be obtained from the general secretary, the Chemical Society, Burlington House, Piccadilly, London, W.1.

THE following officers of the International Federation of Societies of Cosmetic Chemists have been elected: *President*, R. H. Marriott, Britain; *Treasurer*, G. Dony, Belgium; *Committee*, J. Artigas, Spain; L. W. Masch, Germany; P. Velon, France.

APPLICATIONS for grants from the research fund of the Chemical Society are to be considered in November, and should be submitted not later than November 15. Forms of application may be obtained from the general secretary, the Chemical Society, Burlington House, Piccadilly, London, W.1.

THIRTY scientists specialising in the diagnosis and treatment of radiation injury assembled at the Palais des Nations, Geneva, on October 17 for a six-day meeting held under the joint auspices of the World Health Organisation and the International Atomic Energy Agency. The aim of the meeting was to promote discussion of a number of studies which included the acute radiation syndrome in man and its treatment after radiation accidents; radiation given therapeutically and followed by tissue transplantation; bone-marrow transplantation in man and animals, and other similar problems.

## TOPICAL REFLECTIONS

By Xrayser

*Shoes and sealing wax*

Not having heard the B.B.C. television programme on October 18, during which the marketing methods of the British pharmaceutical industry came under review, I was glad of the opportunity of reading your report of the proceedings on p. 498. I note that your heading says "An argument on B.B.C. television," and a reading of the matter suggests that the subject generated more heat than was seemly, making it quite inappropriate for you to use the title "a discussion." What the viewing public were able to make of it all I have no notion, but one is left with the uncomfortable feeling that the pharmaceutical industry was very much on the defensive and extremely sensitive to criticism. That is due, in large part, to the persistent attacks on the cost of the pharmaceutical service within a National Health Service, successive Chancellors of the Exchequer and Ministers of Health having lost no opportunity to malign both the medicine maker and the medicine taker. Reference was made to replies by speakers at the opening of an exhibition in London to much of the criticism levelled against the industry. Among the replies quoted was one to the effect that the cost of drugs under the National Health Service is small compared with our expenditure in other things such as the cinema, meat and footwear. I accept the fact, but the Government may well argue that, like the flowers of spring, it has nothing to do with the case, for the Government is not asked to find, from public money raised by levy and taxation, a national bill for the public's entertainment, its food, or its shoes. It does have to pay the drug bill, over which it has considerably less control than the individual who chooses his cinema seat, his joint or his footwear. I am not defending Government attacks on a ready made target, but any consumer of goods is entitled to see that he is getting value for his money.

*Value*

How is value for money to be assessed in relation to the drug bill? It is not to be regarded solely in terms of cash, and there, in the view of many, is where the Government errs. It takes the target of one large single figure, and bemoans its size in relation to previous years, castigating in the process that public throat which swallows cascades of medicine and avalanches of pills. It does not publish, in the same context, details of serious illness averted, early return to work, or shorter stay in hospital. If the Government chooses to departmentalise, the drug industry might find a way of collating statistics more likely to impress than a comparison of the cost to the individual of his cinema, his meat, his footwear, his football pools, his transport to work, or any number of things. But the discussion centred largely on methods of marketing by advertising and sampling. In defending the sampling, Mr. L. M. Spalton, B.Pharm., M.P.S., who put forward the industry's case, said: "If the doctor would use them (the samples) as they were intended to be used, and hand them out to patients who need them, he would save a lot of the cost of prescribing them on the National Health Service." I cannot see that argument impressing the Government, though it may make some impression on pharmacists who dispense National Health Service medicines.

*New Zealand*

I have no doubt that Government officials in this country have read the annual report (p. 511) of the New Zealand Department of Health. It is a well constructed and well reasoned document, and it points out that the fact that there is a health service with "free" medicine is not the reason for the prevalence of the taking of medicines, as is so often suggested. The report makes a wide survey of conditions in other countries where no such service exists, and concludes that there is no connection between the rise in drug expenditure and "free" medicine, though it does not say that the high cost in some countries might be precisely because of the absence of a health service and a consequent fear of disabling illness.

## NEW PRODUCTS AND PACKS

**"New Look" for a Product.**—Walter Crowe, Ltd., 26 City Road, London, E.C.1, are now issuing their speciality Yestamin in bottle of new shape, with new label and in a new solo "set-piece" for single-bottle display.

**Wheat Germ and Royal Jelly.**—A new product, Lusty's Royal Serum capsules, described as a "natural wonder food," is being marketed by Lusty's Natural Products Co., Ltd., 278 London Road, Westcliff-on-Sea. Each capsule contains 255 mgm. of wheat germ oil and 50 mgm. of royal jelly.

**Oral Vasodilator.**—Organon Laboratories, Ltd., Brettenham House, Lancaster Place, London, W.C.2, announce the introduction of Dilavase, a new oral vasodilator for the treatment of peripheral vascular disorders. Dilavase is issued as tablets each containing 10 mgm. of isoxsurpine hydrochloride. The packs are bottles of fifty and 250.

**A Sterilised Medicated Dressing.**—Roussel Laboratories, Ltd., 847 Harrow Road, London, N.W.10, announce the introduction of Sofra-tulle, a sterilised paraffin gauze dressing incorporating 1 per cent. of Soframycin. Sofra-tulle is packed in sealed tin containing ten pieces of dressing 4 x 4 in. Supply at this stage is restricted to hospitals and industrial concerns, since the product is not yet included in the Drug Tariff schedule of authorised appliances.

**Tablets Against Colds.**—Allen & Hanburys, Ltd., Bethnal Green, London, E.2, have launched a new speciality Capriton tablets as a decongestant, anti-allergic and antipyretic preparation against colds, sinusitis and rhinitis. The use of the tablets avoids the need for supplementary topical therapy with nasal drops, sprays or inhalants. There are understood to be no "rebound" congestion and no mucosal damage. Each tablet contains 2 mgm. of chlorpheniramine maleate, 10 mgm. of phenylephrine hydrochloride, 230 mgm. of aspirin, 160 mgm. of phenacetin and 30 mgm. of caffeine. The pack is a tube of twelve tablets. The outer contains twenty-four tubes.

**In Suspension or as Tablets.**—John Wyeth & Brother, Ltd., Clifton House, Euston Road, London, N.W.1, announce the introduction of Aludrox SA suspension and tablets, each presenting in association an antispasmodic, sedative and antacids. The suspension contains in each 5 mls, 4.75 mls of aluminium hydroxide gel, B.P.; 100 mgm. of magnesium hydroxide gel, B.P.C.; 8 mgm. of butabarbitalone; and 2.5 mgm. of ambutoonium bromide. The tablets contain in each: 290 mgm. of dried aluminium hydroxide gel, B.P.; 80 mgm. of magnesium hydroxide, B.P.C.; 8 mgm. of butabarbitalone; and 2.5 mgm. of ambutoonium bromide. The suspension is issued in bottle of 12 fl. oz. and the tablets in containers of fifty and 250.

**Antibiotic in Disposable Syringe.**—Erythrocin-I.M. is the new erythromycin compound (erythromycin ethyl succinate) of Abbott Laboratories, Ltd., Baker Street, London, W.1, dissolved in polyethylene glycol. It is

prepared specifically for intramuscular use. Compared with other soluble derivatives of erythromycin (designed primarily for intravenous use) the ethyl succinate is claimed relatively non-irritating. Erythrocin-I.M. is stable at room temperature and comes ready for injection. If it has been refrigerated, it should be warmed slightly before use, to make the solution less viscous. The preparation should not be used intravenously or subcutaneously. Erythrocin-I.M. in disposable Abboject syringe is supplied in 2-mil sizes containing 100 mgm. of erythromycin and 1-mil size containing 50 mgm. of erythromycin.

**Antihistaminic and Antipruritic.**—A new compound, 10-(1-methyl-3-pyrrolidinylmethyl) phenothiazine (methdilazine) for which high antihistaminic and exceptional antipruritic activities are claimed, is being launched by The British Drug Houses, Ltd., Graham Street, London, N.1, under the name Dilosyn. It is available as tablets for adult administration and as a peach-flavoured syrup for children. Dilosyn is understood to have provided effective symptomatic relief in a wide variety of allergic conditions and in allergic and non-allergic pruritus including that accompanying chickenpox. Its advantages are its rapid absorption and consequential prompt relief and its sustained action with low-toxicity and minimal side effects. The tablets (8-mgm. compression-coated) are issued in bottles of twenty-five and 250, and the syrup in bottles of 4 fl. oz. (4 mgm. per teaspoonful).

**A Deterrent against Smoking.**—Uni-Pharma, Ltd., 109 Kingsway, London, W.C.2, are making available in Britain the smoking deterrent speciality Lobidan, manufactured by Uni-Chemie at Zurich, Switzerland. Each tablet of Lobidan contains 2 mgm. of lobeline sulphate, 125 mgm. of magnesium carbonate and 180 mgm. of tribasic calcium phosphate. Principle of the product is that cross-tolerance exists between lobeline and nicotine. Regular smoking produces a nicotine blood-level and the nicotine becomes a constant part of metabolism. When the concentration of blood and tissue is reduced, a "psychic yearning" for nicotine is created and the mechanism of addiction is thus set up. Lobeline is understood not to give rise to such habituation. When, therefore, nicotine is replaced by lobeline, the usual nicotine concentration appears psychically to exist, and the yearning for further nicotine ingestion is significantly reduced or even eliminated. Special buffering in Lobidan reduces the effective dose of lobeline to a maximum of 8 mgm. daily and thus, it is understood, eliminates unpleasant side reactions. Lobidan is claimed not to alter the taste of an occasional cigarette.

**Hair Bleaches.**—Rapidol, Ltd., Inecto House, 27 Dover Street, London, W.1, announce the launching of two new Inecto products: Inecto crême hair lightener, claimed easy to use and to leave the hair in a gleaming condition; and Inecto lanolised Hi-lift, a

powder bleach that provides a "perfect" base for pastel tints and rinses.

**New Lipstick Shades.**—Coty (England), Ltd., 3 Stratford Place, London, W.1, have introduced six new shades in their "24" lipstick. The new shades, each with matching nail enamel, are peach souffle, Bikini pink, Madison time, Voo-doo rose, corn silk and picador pink.

**Giant-size Talc.**—A honeysuckle talcum powder is the latest addition to the "Margo's" range of products of Sidney Margolis, Ltd., Hemp Row, London, S.E.17. The product is in a multicolour tin with a design in which the honeysuckle pattern predominates. The text is in deep red as are the cap and top of the tin.

## A CENTENARY CELEBRATED

### Overseas Guests at a Dinner

MANY distinguished guests attended a dinner in the City of London on October 21 to celebrate the centenary of Thomas Christy & Co., Ltd. SIR HUGH LINSTED (a secretary of the Pharmaceutical Society), replying to the toast of the guests which had been proposed by the chairman (Mr. Cecil B. Christy, a grandson of the founder), mentioned that there were overseas guests present from Sweden, Switzerland and France. He had a special greeting—in French—for Mr. F. Arnal (chairman of the French section of the Franco-British Pharmaceutical Commission) and Mr. P. Martinot.

The toast to the "Past, Present and Future of Thos. Christy & Co." was proposed by MR. R. L. DEMUTH, who said that it was "no accident that we find the company as vigorous, as well housed, and as successful as at any time in its 100 years' history." Throughout the period there had run the thread of the Christy family. Mr. Demuth also paid tribute to Mr. George Roberts (joint managing director) who, with a few employees, had kept their company going after the premises in Old Swan Lane were totally destroyed in 1941 at a time when Mr. Christy was "in uniform."

Individual enterprise and ingenuity had been the motive force behind the achievement of the Christy centenary; its history had given evidence of its ability to advance towards its bicentenary. Today there was a "commercial revolution in which ideas and tastes are determined by the advertiser and attendant services are being prostituted to serve him." Mr. Demuth was certain that the company would not yield their personality too readily but would have the courage of their inheritance to sacrifice, in part at least, ready rewards by sometimes taking a stand and backing it.

He believed they would marry their independent individuality with the trend of the times to prosecute the new task as successfully as in the past.

## INFORMATION WANTED

The Editor would appreciate information about the following:

Duradillan tablets (Phillips & Dugan)  
Amary's perfume "Soir des Fleurs"

## TRADE NOTES

**Perfume Spray Set.**—Goya, Ltd., 160 New Bond Street, London, W.1, have added to their perfume Cologne spray series their newest fragrance Love Affair.

**Changed Prices.** — Phillips, Scott & Turner, Ltd., 179 Acton Vale, London, W.3, announce advances (operative from October 24) in the prices of Andrews liver salt and Delrosa rose-hip syrup.

**Addition to Range.**—Savlon hospital concentrate is now available as a dispensing pack in 1-gall. tin. The manufacturers are Imperial Chemical Industries, Ltd., pharmaceuticals division, Fulshaw Hall, Wilmslow, Ches.

**Coloured for Identification.** — The 10-mgm. strength of Decaserpyl tablets issued by Roussel Laboratories, Ltd., 847 Harrow Road, London, N.W.10, are coloured pink for convenience of prescribing and administration.

**Christmas Bonus Parcel.** — L. G. Colomb & Co., Ltd., 3 King Street, Covent Garden, London, W.C.2, offer a bonus parcel of Delage perfume Christmas novelty packs showing 51 per cent. on outlay. Supplies are available direct or through wholesalers.

**No Saturday Deliveries.** — Biorex Laboratories, Ltd., 47 Exmouth Street, London, E.C.1, are now operating on a five-day week basis. Hospital orders are being executed only Monday to Friday (no orders dispatched on Saturdays). The arrangement comes into force on October 29.

**Distribution Change.** — From November 1, Fassett & Johnson, Ltd., 86 Clerkenwell Road, London, E.C.1, are ceasing to distribute the products of Fairy Dyes, Ltd. From that date orders and inquiries should be addressed direct to the manufacturers, at 2 Glendower Place, London, S.W.7.

**Reproductions of Masterpieces.**—Kimberly-Clark, Ltd., Larkfield, Maidstone, Kent, are offering reproductions from paintings by Degas, Manet and Waugh, printed in full colour on textured paper simulating canvas, to customers for Kotex. The set, valued at over 30s., is available for 3s. 11d., plus a flap from a Kotex box.

**Administration Change.** — Sanitas Group Sales, Ltd., 51 Clapham Road, London, S.W.9, now handle all orders and accounts for W. Woodward, Ltd., the Sanitas Co., Ltd., Oppenheimer, Son & Co., Ltd., Lactagol, Ltd., Liquifruta Laboratories, and Elsan Manufacturing Co. A new price list and scale of discounts are available.

**Wright-Fleming Antigens.** — Pollaccine and all other antigens manufactured by the Wright-Fleming Institute are now obtainable only through the sole agents, Beecham Research Laboratories, Ltd., Brentford, Middlesex. Pollaccine becomes available from November 1 in a range of sets of 5-mil vials in various unitages per mil and in single 5-mil and 10-mil vials.

**Foreign Proprietaries.** — Roberts Chemists (Bond Street), Ltd., 76 New Bond Street, London, W.1, have in stock over 500 Continental proprietaries, including products under the trade marks Kisby, Collyre bleu, Okasa,

Vademecum, Tche Hao, Boule Quies, Rowachol, Rowatinex, Rowalind, Hirudoid, Combizym, Monotran, and Luizym.

**Withdrawn.** — GLAXO LABORATORIES, LTD., Greenford, Middlesex, have discontinued manufacture of Cortelan eye drops and eye ointment, and of Adexocal tablets. — ROUSSEL LABORATORIES, LTD., 847 Harrow Road, London, N.W.10, announce that Crodimyl and Coltromyl products are being withdrawn; no further supplies will be available when present stocks are exhausted.

**Name Changes.**—Glaxo Laboratories, Ltd., Greenford, Middlesex, announce that Efcortelan and Efcortelan-N No. 1 ointments are now known as Efcortelan and Efcortelan-N creams; Efcortelan and Efcortelan-N No. 2 ointments as Efcortelan and Efcortelan-N ointments; Predsol and Predsol-N No. 1 ointments as Predsol and Predsol-N creams; and Predsol and Predsol-N No. 2 ointments as Predsol and Predsol-N ointments.

### Bonus Offers

SCRAM PRODUCTS, LTD., Dartmouth Park Hill, London, N.W.5. Scram. 5 per cent. on 1 doz. in display box.

## MANUFACTURE OF SILICONES

### A multi-million venture within ten years of starting

SILICONES, by virtue of their water-resistant properties, are gaining increasing favour as constituents of pharmaceutical "barrier" creams and applications. How they are produced commercially was outlined by DR. R. A. GREGORY (managing director, Midland Silicones, Ltd.) in a paper presented to the recent meeting of the British Association for the Advancement of Science (see *C. & D.*, September 10, p. 296). Dr. Gregory said the manufacture of silicones was essentially a post-war development in the field of chemicals. Production had steadily increased until in 1960 the total annual world output was estimated at about 20,000 tons, valued at £40-50 millions. The products, ranging in appearance from oils and greases to hard resin-like materials, were derivatives of elemental silicon which, in turn, was derived from sand.

The first stage in manufacture involved the reaction of silicon (a hard silvery grey "metallic" substance obtained by electric-furnace smelting of sand and coke) with methyl chloride. The product was ground to a fine powder which, on heating with methyl chloride to 300° C., reacted with it to form a mixture of colourless fuming liquids—the chlorosilanes. (Other types of chlorosilane could be obtained by reacting silicon with compounds of benzene.) The mixtures of chlorosilanes thus obtained were then subjected to a complex series of distillation processes in a plant resembling a small-scale oil refinery, in order to separate them into purified components. Chlorosilanes were converted into silicones by reaction with water. The two liquids were stirred together in a glass-lined vessel, whereupon the mixture separated into two layers, a silicone oil on the top and an acid layer underneath. The types of silicone oil obtained de-

## MANUFACTURERS' ACTIVITIES

**Data-processing System Ordered.** — Beecham Group, Ltd., have ordered an Orion data processing system at a cost of approximately £300,000. The system is to be used for the production of sales and marketing statistics, and for invoicing, customer accounts and stock control at Beecham House, Brentford.

**Holiday Contest Winner.** — Vick International, Ltd., held a reception in London on October 12, to present the winner of their Rayfilta holiday contest with the prize of £850. The winner, Mrs. L. M. Tonks, Hall Green, Birmingham, travelled to London the day before, and stayed overnight as the guest of the company. Competitors were asked to place in order the eight attributes of Rayfilta sunburn prevention cream and to compose a slogan. The chemists who provided Mrs. Tonks with her entry form (Harber (Chemists), Ltd., Kings Heath, Birmingham) received a prize of £50. Second-prize winners, of which there were six, each had the choice of a scooter or £150; the supplying chemists each received £25.

ended on the type of chlorosilane used in the reaction.

The crude silicone oil was washed free from acid and further treated in a variety of ways according to type of finished product required. Oils ranging in consistency from free-running liquids to heavy syrups were produced, and by mixing the oils with metallic soaps or other fillers a range of greases could be obtained. Other silicones were produced as varnishes which, after application followed by drying and baking, would impart hard adherent films to many surfaces. Stiff jellies or gums could also be produced that developed rubbery properties when mixed with finely powdered fillers such as silica and then vulcanized. Because of their relatively high cost, those materials could not at present compete with similar non-silicone materials, under ordinary conditions of use. However, they had the valuable property of maintaining their action over a wide range of temperatures, at which conventional materials might be frozen hard and brittle or burnt and reduced to a smouldering mass. Throughout the world a large amount of research work was in progress on the production of new and improved types of silicones. Some had already completed their laboratory trials and were in small-scale production. Many more were in various stages of development. The silicone manufacturing industry in this country had grown from nothing to a multi-million-pound venture employing a thousand people in the short period of ten years, and it seemed certain that a further vigorous expansion would take place during coming years.

(The chemical and physical properties of silicones and their use in pharmacy, medicine and cosmeticology is dealt with in detail in the *C. & D.* publication "The Pharmacy of Silicones.")

## MARRIAGES

**MURRAY—McDONNELL.** — At St. Mary's Church, Knockbridge, Dundalk, co. Louth, Eire, on October 18, Gerard Murray, Carrickmacross, co. Monaghan, to Eithne Mary McDonnell, M.P.S.I., Glyde House, Ardee, co. Louth.

**PARTON—SMITH.**—At Stoke-on-Trent, Staffs, on September 24, Alan James Parton, M.P.S., 82 Whitfield Road, Stoke-on-Trent, to Margaret Joyce Smith.

### Silver Wedding

**BEET—DENT.** — At St. John's Church, Helsington, Kendal, Westmorland, on October 19, 1935, George Leslie Beet, F.P.S., to Beatrice Dent. Present address: 39 Albert Road, Morecambe, Lancs.

### Golden Wedding

**MELLOR—DUNICLIFF.** — At the Congregational Church, Uttoxeter, Staffs, on September 29, 1910, Ernest Martin Mellor, M.P.S., to Mabel Louise Dunicliff. Present address: 12 Market Place, Uttoxeter.

## DEATHS

**BAILEY.**—On October 21, Mr. Edward Bailey, M.P.S., Chequer Farm, Forest Row, Sussex. Mr. Bailey, who qualified in 1921, was the sales director of Organon Laboratories, Ltd., Brettenham House, Lancaster Place, London, W.C.2.

**CHARNOCK.**—On October 9, Mr. Joseph Sutcliffe Charnock, M.P.S., 436 Green Lane, New Eltham, London, S.E.9, Mr. Charnock qualified in 1912.

**DOBSON.**—On October 4, Mr. Frederick William Dobson, M.P.S., 507 Rayners Lane, Pinner, Middlesex. Mr. Dobson qualified in 1923.

**HAGUE.**—On October 19, Sir Harry Hague, M.P.S., The Chantry, Elstree, Hertfordshire. Sir Harry qualified in 1903 and joined A. Wander, Ltd., 42 Upper Grosvenor Street, Grosvenor Square, London, W.1, in 1910, and was managing director and general manager for more than forty years prior to his retirement at the end of 1958. He was knighted in 1931.

**JOHN.** — On September 28, Mr. Thomas John, M.P.S., 4 Abercromby Square, Castle Douglas, Kirkcudbrightshire. Mr. John qualified in 1952.

**LAWRIE.**—On September 30, Mr. William Carruthers Lawrie, M.P.S., 105 Corporation Road, Workington. Mr. Lawrie qualified in 1905.

**MALLABAND.**—On October 7, Mr. William Henry Mallaband, F.P.S., Tremavis, Bathford, Bath, aged eighty-five.

**MOORHOUSE.**—On October 2, Mr. Joseph Moorhouse, M.P.S., 16 Carvers Road, Broseley, Shropshire. Mr. Moorhouse qualified in 1911.

**POWELL.** — On October 25, Mr. George Storer Powell, M.P.S., 14 Linkfield Gardens, Redhill, Surrey. Mr. Powell, who qualified in 1920, was a director and the secretary of H. Hocken, Ltd., Redhill. He was appointed to the Surrey Insurance Committee in 1935, and became its chairman dur-

ing 1941-43. Of the new Pharmaceutical Committee that followed the introduction of the National Health Service he became chairman, 1950-51. During the 1939-45 war he was chairman of the Surrey Pharmaceutical War Committee. For a period from 1938 Mr. Powell was the secretary of the Reigate and Redhill Branch of the Pharmaceutical Society; later he was elected its chairman.

**YARE.**—On October 13, Mr. Geoffrey Francis Yare, M.P.S., 235 Ashby Road, Scunthorps, Lincs, aged fifty-four. Mr. Yare qualified in 1928.

## PERSONALITIES

**SIR EDWIN SAVORY HERBERT,** who was chairman of the Royal Commission on Local Government in Greater London which last week issued its report recommending sweeping changes in London's local government, is chairman of the board of directors of H. W. Herbert, Ltd., chemists, Egham, Surrey, and its associated companies. His father (the late Henry William Herbert) who qualified as a pharmacist in 1886, founded in Egham in 1894, the business that today has twenty-two pharmacies. Sir Edwin presides over the company's board meetings in the room in which he was born above the Egham pharmacy.

**PROFESSOR PETER BRIAN MEDAWAR, F.R.S.,** who is Jodrell Professor of Zoology and Comparative Anatomy at University College, London, has been awarded the Nobel Prize for Medicine jointly with **PROFESSOR SIR MACFARLANE BURNET, F.R.S.,** director of the Walter and Eliza Hall Institute for Medical Research, Melbourne, Australia, for the discovery of "acquired immunological tolerance." The Swedish authorities describe the discovery as one of the greatest events in the history of immunology and the starting point of a new era in experimental biology. The Queen approved a recommendation by the council of the Royal Society for the award of a royal medal to Professor Medawar for his contributions in the field of tissue transplantation immunity and acquired tolerance. He was recently appointed director of the National Institute for Medical Research—a post he will take up in two years' time. Sir Macfarlane Burnet was awarded the Royal Society's Copley Medal for his "distinguished contributions" to knowledge on viruses and of immunology in July. Sir Macfarlane is regarded as one of the leading authorities on virus diseases and discovered the vaccine which produced seasonal immunity against influenza. He has done research at the National Institute for Medical Research, Hampstead. He was awarded the Order of Merit in 1958.

## OVERSEAS VISITS

**MR. LESLIE BIBBY** (director, J. Bibby & Sons, Ltd.), left England on September 30, on a fact-finding mission to the United States and Canada.

**MR. ALAN L. SPRATT** (export manager, the Mentholatum Co., Ltd.), is visiting the company's agents and representatives in the Sudan, Kenya,

South Africa, Ghana, Sierra Leone, Nigeria and Senegal. He will be returning to Slough on December 19.

## BUSINESS CHANGES

**TIMOTHY WHITES & TAYLORS LTD.,** have opened a new store on the reconstructed site at 96 Notting Hill Gate, London, W.11.

THE London office of P. B. Cow & Co., Ltd., is removing to Liverpool Road, Trading Estate, Slough, Bucks on October 31.

**DOROTHY GRAY, LTD.,** have opened a showroom at 8 Grosvenor Street, London, W.1 (telephone: Mayfair 0714).

THE business carried on by Mr. Robert Shand, 210 Gallowgate, Aberdeen, has been closed because the premises are scheduled for demolition. Mr. Shand will continue at 44 Moir Green, Aberdeen.

**WHITMOYER-REED, LTD.,** is the new trading title of R. F. Reed, Ltd., Hertford Road, Barking, Essex, following the acquisition recently of the majority interest in the company by Whitmoyer Laboratories, Inc., Myerstown, Pennsylvania, U.S.A. Whitmoyer-Reed, Ltd., are continuing to manufacture their range of pharmaceuticals and fine chemicals previously produced by R. F. Reed, Ltd., and it is their intention later to introduce the veterinary specialities to the British market which have been established in the United States and Canada by Whitmoyer Laboratories.

### Appointments

**P.D.S. (LEEDS), LTD.,** 1 Howarth Place, Leeds, 7, have appointed Mr. F. Talbot manager in succession to Mr. G. G. Edwards who has retired.

**GRIFFIN & GEORGE (SALES), LTD.,** Ealing Road, Alperion, Middlesex, have appointed Mr. Clifford E. Passmore field sales manager for the company's Midland region.

**EVANS MEDICAL, LTD.,** Liverpool, have appointed Mr. Frederick Morrice secretary of the company in succession to the late Mr. Laurence Chrimes.

**MACFARLAN SMITH, LTD.,** announce that Mr. J. O. Main, M.P.S. (of J. F. Macfarlan & Co., Elstree), has been appointed assistant London manager at 4 Carlos Place, W.1.

**CIBA LABORATORIES, LTD.,** Horsham, Sussex, have appointed the following representatives: Messrs. A. J. Barnes, M.P.S. (for Middlesex); I. B. Douglas, B.Sc. (Pharm.) (Southwest Scotland); C. W. M. Jaffray, M.P.S. (North Scotland); N. E. H. Jones, B.Sc. (Birmingham); H. Seifert, M.P.S. (Suffolk and part Essex); and K. S. Taylor, M.P.S. (North London).

**PRICES (BROMBOROUGH), LTD.,** Bromborough Pool, New Ferry, Birkenhead, announce that Mr. B. R. Hook (sales director) is to take up an appointment with Unilever, Ltd., as marketing member of the United Kingdom chemical group. Mr. A. Vickery (at present commercial sales manager) is to replace Mr. Hook. Mr. R. E. Davies has been appointed commercial



sales manager and Mr. T. A. Winney, home sales manager.

## COMPANY NEWS

Previous year's figures in parentheses

**HORLICKS, LTD.**—Mr. Clifford J. Harrison is to retire at the end of November.

**WHIFFEN & SONS, LTD.** — Mr. S. G. Harmer (works manager), has been elected to the board.

**LAPORTE INDUSTRIES, LTD.** — An interim ordinary dividend of 3 per cent. is to be paid on December 1 for the year ending March 31, 1961. (The same was paid last year but on smaller capital).

**TIMOTHY WHITES & TAYLORS, LTD.**—An interim dividend on the Ordinary shares is declared of 6 per cent. actual, for the year ending January 14, 1961. It is anticipated that if conditions remain favourable it will be possible to pay a final dividend of 9 per cent. making a total of 15 per cent. for the year.

**ILFORD, LTD.** — Mr. Rupert A. Withers has decided, while continuing in his full-time executive capacity as deputy chairman to relinquish his appointment as joint managing director. Mr. James Mitchell (sales director) has been appointed to succeed Mr. Withers as joint managing director with Mr. W. H. Dimsdale.

**BRITISH ALKALOIDS, LTD.** — Interim dividend is being maintained at 1.2d. a 1s. share. The directors report that there was a moderate decrease in sales for the half-year ended September 30, compared with those for the same period of 1959, but since then sales have shown an improving tendency. The final payment last time was 3.3d. a share.

**THOMAS HEDLEY & CO., LTD.** —Mr. Charles M. Fullgraf has been appointed managing director. Prior to the appointment, Mr. Fullgraf was managing director of the toilet goods division of the Procter & Gamble Co. (Hedley's parent company), and a member of the Procter & Gamble administrative committee in Cincinnati, Ohio. Mr. K. W. Streith, who has been managing director since August 1958, is on leave of absence on a special assignment to develop further Hedley's export business with particular emphasis on the Outer Seven. Mr. Streith remains a director.—Mr. R. F. Jackson (general sales manager) has been appointed a director.

**BEECHAM RESEARCH LABORATORIES, LTD.**—Mr. C. D. W. Stafford, M.P.S. (chairman and managing director) relinquishes the latter appointment on November 1. He is succeeded as managing director by the assistant managing director (Mr. G. J. Wilkins, B.Sc.). Mr. R. Halstead, M.A., B.Sc., A.R.I.C. (director and vice-president (production), Beecham Products, Inc., the group's subsidiary in U.S.A.), is appointed assistant managing director.

**FISONS, LTD.**—Ordinary dividend is being raised by the equivalent of 2 per cent. to 11 per cent., on capital increased by a one-for-three scrip issue, with a 7 per cent. final for the year ended June 30. Trading profit and investment income of the group expanded

from £3,641,360 to £4,509,169, after substantially heavier depreciation. The net profit, after tax and minority interests, amounted to £2,020,620 (against £1,800,527). The directors state that they do not expect to reach the same exceptional level of profit in the current year, but have no reason to doubt that they will recommend a maintenance of the dividend.

**SANGERS, LTD.** — In a promised preliminary statement to members issued with the full report for the year ended February 29, Mr. John Sanger (chairman) says that in spite of appreciable increase in turnover, the profits fell considerably. As he stated, in the previous year, sales were most encouraging to date but again fell away during the last three months, mainly due to the mild weather. There had been intensified competition over the last two years due to a number of companies, some of which are quite new to the trade, having entered the field in most areas for the distribution of pharmaceuticals. In order to meet that competition, the company had been involved in heavy extra costs throughout the year, particularly in the transport section. In addition, owing to local competition, it was decided to open two country branches. Wages had again risen during the current year so that the total remuneration to salaried and weekly staff amounted to 60 per cent. of the gross profit of the company. "The ever-increasing overheads are a burden to all companies, particularly when trading on fixed margins of profit," adds the statement. As stated previously (*C. & D.*, October 22, p. 499), group net profits contracted from £187,269 to £131,862 in the year ended February 29.

### Possible Mergers

IN the financial news again this week have been Howards & Sons, Ltd., and The British Drug Houses, Ltd., each the subject of merger rumours. The chairman of Messrs. Howards (Mr. T. W. Howard), told *The Times* that he hoped to make an announcement about a merger of his company "by the end of this month." *The Daily Mail* on October 25 reported that share dealers were confident that there would be a merger between Glaxo Laboratories, Ltd., and The British Drug Houses, Ltd., and gave a basis of the share exchange recommendation, but *The Guardian* financial correspondent reported the next day that Messrs. Glaxo had denied having talks and that they had consequently made no offer to The British Drug Houses, Ltd.

## LEGAL REPORTS

### Charged Under Wrong Section

BECAUSE he was charged under a wrong section of the Pharmacy and Poisons Act, 1933, Mr. Cyril Teasdale, M.P.S., 59 High Street, Wombwell, Barnsley, won his appeal in the Queen's Bench Divisional Court on October 20 against a conviction of an offence in relation to a dispensing of Urolucosil tablets. He was awarded costs. The justices for the petty sessional division of Staincross, sitting at Barnsley, had fined Mr. Teasdale £50

after he had pleaded guilty to a summons alleging that on October 1, 1959, "he, being an authorised seller of poisons, unlawfully dispensed a medicine, Urolucosil tablets, otherwise than under the direct and personal supervision of a registered pharmacist, contrary to Sections 19 (5) and 24 of the Act." Lord Parker (the Lord Chief Justice) said it was found that an employec, without Mr. Teasdale's instructions and without the supervision of a registered pharmacist, dispensed some of the tablets. Mr. Teasdale in fact pleaded guilty, acting on advice. He had since received other advice. Lord Parker said the case raised a highly technical point but he had come to the conclusion that Mr. Teasdale should have been charged under Section 18 of the Act, Section 19 being an exemption clause. "It is stretching the words to say that provisions which afford an exemption are provisions which have to be complied with," his lordship added. "There are no merits so far as I can see in the application. But I think Mr. Teasdale was wrongly charged and the conviction must be quashed." Messrs. Justices Ashworth and Elwes agreed.

### Company and Manager Fined

A BELFAST housewife, who had been taking Drinamyl tablets for eight years, told the Belfast Summons Court on October 11 she could not do without them. Mrs. Jean Davis, 32 Lawnbrook Square, Belfast, was giving evidence in a case in which Cornett & Co., Ltd., pharmaceutical chemists, Woodvale Road, Belfast, were found guilty of supplying her with Drinamyl tablets without a prescription given by a qualified medical practitioner. The firm was fined £25. A similar penalty was imposed on Robert McGrath, M.P.S.N.I., manager, who was summoned for aiding and abetting.

Mrs. Davis admitted to the court that although she was now receiving hospital treatment, as an habituate of the drug her desire for it was so great that even during a recent weekend she had borrowed four tablets from a girl who was getting them on a doctor's prescription. Mrs. Davis said that a year ago her doctor prescribed the tablets because she was suffering from depression. But later he stopped the prescription and she changed to another doctor, although he, too, would not give her any Drinamyl. She continued: "I have been getting the tablets at Cornett's on the Woodvale Road without a prescription. The man in the shop is called Bobby and I see him in court today. Sometimes I got fifty tablets for five shillings and sometimes twenty-four for 2s. 6d. When I got them I always asked for Drinamyl. He never asked me for a prescription." Mrs. Davis identified tablets in a small black and white box as the tablets she had purchased. She identified a prescription as the one she left in Cornett's that day. Later Mrs. Davis said that she had been in Cornett's pharmacy about a dozen times altogether. Each time she received the tablets there were no markings on the box and the word Drinamyl did not appear. She admitted to Mr. J. K. Pringle, who represented the defen-

dants, that she knew she was not supposed to take the tablets without a doctor's prescription.

Mr. John N. Patterson, pharmaceutical inspector, Ministry of Home Affairs, who brought the prosecution, said his experience of the drug was that people could become habituates of it and it was decided to make the tablets unobtainable without a prescription. Detective Sergeant Samuel

Davidson said that when he questioned Mr. McGrath about the sale of the drug he denied it. He could not recall Mrs. Davis and said he had sold only two or three tablets to women with prescriptions. In evidence Mr. McGrath said he did not know Mrs. Davis. She had never been in his shop and he had never sold her any Drinamyl tablets. Shown a prescription bearing Mr. Davis's name, Mr.

McGrath admitted that it had been dispensed in his shop. He added that there were no other tablets of a similar description on sale in the United Kingdom. If anybody got heart-shaped blue tablets from his shop they must be Drinamyl. Miss M. Morton, an unqualified assistant, who had been with the company for four years, said she had never seen Mrs. Davis in the shop and did not know her.

## LEGISLATION CONCERNING MEDICINES

### Public pharmacists' evidence to Working Party

A STRONG recommendation that statutory recognition should be given to the proposal by the Aitken Committee that no hospital should be entirely without the services of a pharmaceutical chemist is included in the memorandum submitted by the Guild of Public Pharmacists to the Interdepartmental Working Party on legislation concerning medicines. Another fundamental principle stated in the memorandum is "that it should be clearly enumerated in any future revision of the National Health Service Acts that the purchase, receipt, storage and issue of medicinal substances in hospitals or health centres should be under the supervision of a pharmaceutical chemist."

The Guild has set out a number of general principles that have been borne in mind when preparing the statement, one of which decrees that "Pharmaceutical advice should be readily available at all levels of administration, i.e., hospital management committees or boards of management, boards of governors or regional boards, and at the Ministry of Health or the Department of Health." The Guild further believes that "There is no good reason for any differentiation in hospitals between poisons and other medicinal substances. It is desirable that *all medicinal substances* which are for internal or external use should be treated with equal care. The artificial division of these substances into classes or schedules tends to promote the idea that toxicity is an absolute rather than a relative property and that unwarranted liberties can be taken with certain medicinal substances simply because they are not in a particular schedule." The Guild recommends that there should be only two classes of medicinal substances:—Drugs of addiction and the majority of medicinal substances, not being drugs of addiction. That would simplify hospital procedure without any relaxation of safeguards.

The Guild comments upon certain statutes. Regarding the Radioactive Substances Act, 1948, the Guild considers that as provision is made in the Act for supply through pharmaceutical channels, "no recommendations are necessary beyond the statement that pharmaceutical chemists should continue to receive recognition as potential distributors of radioactive substances." It is suggested that the Therapeutic Substances Act, 1956, requires consolidation and simplification.

The Guild's only interest in the Medical Act, 1956, is to retain the wording of Clause 53 in any new statute, namely, "Nothing in this Act

contained shall extend or be construed to extend to prejudice or in any way to affect the lawful occupation, trade, or business of pharmaceutical chemists and dentists, or the rights, privileges, or employment of duly licensed apothecaries in Northern Ireland, so far as the same extend to selling, compounding or dispensing medicines."

The Guild is of the opinion that the Poison Rules require modification in order that they should conform with the opinions expressed in the "Aitken Report" and which were subsequently accepted by the Minister of Health. The recommendations numbers 27, 28 and 29 of the Report of the Joint subcommittee of the Standing Medical, Nursing and Pharmaceutical Advisory Committees of the Central Health Services Council on the control of Dangerous Drugs and Poisons in hospital, known as the "Aitken Report" (see *C. & D.*, February 2, 1958, p. 198) relating to containers of medicines, should be incorporated in any modification of Poisons Rules numbers 27 and 28.

The Guild is also of the opinion that Poisons Rules No. 28 and 29 should be modified as follows:—

#### Rule No. 28

paragraph (ii) delete "dispensing or" and delete "a person appointed for that purpose" substituting for this "a duly registered pharmaceutical chemist."

paragraph (iii) the description "sister or nurse in charge" should be clearly defined.

#### Rule No. 29

paragraph (i) delete "dispensing or."

paragraph (ii) delete the entire paragraph and substitute "In any institution to which the foregoing paragraph does not apply all poisons other than those issued for use within the institution must be stored under conditions prescribed by a pharmaceutical chemist appointed for that purpose."

paragraph (iii) to be amended as follows: "In every institution every poison, whether included in the First Schedule to these Rules or not, which is stored in the wards or departments must be stored in a cupboard (provided with a lock) reserved solely for the storage of poisons and other dangerous substances. The keys to this cupboard should always be in the possession of the nurse in charge of the ward or department."

paragraph (iv) delete all words after "pharmacist." Substitute "pharmaceutical chemist" for "pharmacist."

Add new paragraph (v) to give statutory authority to recommendation No. 33 of the Aitken Report: "A pharmaceutical chemist appointed to supervise the

pharmaceutical arrangements at any hospital, group of hospitals, or health centre under the control of any Hospital Management Committee, Board of Management, Board of Governors, or Local Health Authority shall have discretion to prescribe special storage conditions as set forth in Rule No. 29 (iii) for any new experimental drug which appears to him to require such safeguard."

Add new paragraph (vi) as follows: "All samples of medicines for institutional use should be sent to the pharmaceutical department."

If the Guild's recommendation that in hospitals medicines should be classified as either drugs of addiction or medicinal substances not being drugs of addiction were accepted it would be necessary to re-draft the Poisons Rules, 1952, numbers 27, 28 and 29 on the above lines but making the new conditions apply to all medicinal substances.

In that case a new title for the statutory instrument would have to be found and the Guild suggests "The Control of Medicinal Substances in Hospital Rules."

The Guild considers that the Dangerous Drugs Regulations 1953, require clarification and amendment to bring them into line with existing practice.

**Regulation 10 (1) (e):** A definition of "sisters or acting sisters for the time being" is required.

**Regulation 10 (2) and 10 (3):** As the "Aitken Report" states that "no hospital should be entirely without the services of a pharmacist" and as this recommendation has been accepted by the Minister of Health, those two paragraphs are, in the opinion of the Guild, inconsistent with the spirit of the "Aitken Report" and should therefore be deleted from the Regulations.

**Regulation 13 (4) (b):** The special provisions relating to certified midwives require to be extended in order to incorporate recommendations No. 35 of the "Aitken Report" which state that midwives working in hospitals should follow the normal hospital procedure in regard to Dangerous Drugs rather than the domiciliary procedure.

**Regulation 17:** A sister or acting sister is specifically exempted from keeping a Dangerous Drugs register in the form specified for those other persons authorised to possess and supply Dangerous Drugs.

The Report of the Joint subcommittee on the Control of Dangerous Drugs and Poisons in Hospitals recommends that a standard form of ward Dangerous Drugs record book be used nationally and the Guild suggests that this recommendation should be included in any modification of this regulation.

# Trimming Sails to Retail "Winds of Change"

## POLICY TRENDS DISCUSSED AT N.P.U. AREA MEETING

"IF the wind is blowing, the yachtman's sails can be set to profit by it." And if it be a wind of change in the retail, then sales may be analysed to catch shopping trends. That was the argument developed by Mr. H. B. Coulson at an area meeting of the National Pharmaceutical Union held at Cambridge on October 16 and it represents also the trend of the discussion as a whole. The meeting, the second to be held in Cambridge (the first was in 1952) differed in two important respects from previous meetings in the series. In the first place no resolutions were on the agenda paper (one resolution, circulated on a supplementary agenda paper, was withdrawn without being put). Secondly, part of the afternoon's programme was reserved for a lecture-demonstration by a non-pharmacist guest speaker.

The proceedings opened with an address of welcome from MR. E. J. WRIGHT as chairman of the Cambridgeshire and Huntingdonshire Branch of the Union, host branch to members from Beds, Bucks, Essex, Herts, Norfolk, Northants, Oxfordshire and Suffolk.

### "N.P.U. Matters"

The N.P.U. chairman (MR. GWILYM H. HUGHES) then took over, losing little time in calling on MR. S. J. STEARN (treasurer of the Union) to address members on "N.P.U. Matters." Mr. Stearn said it was always difficult to deal with something that had been said many times before, but he felt impelled to defend the N.P.U. against attacks that had been made against it in letters to the Press. The odds against the N.P.U. were heavy, and it was a pity that those who called for more militancy could not try taking a hand in the negotiations. The pace of today was in sharp contrast to the early days of the Union, and the officers were under a tremendous burden. Their brains had to be incessantly pitted against usually well informed opposition. The secretary was being called upon to perform more than any man should be asked to do.

Explaining why the N.P.U. price list had been superseded by a "calculator," Mr. Stearn said the Executive had expended great effort and hundreds of £'s in efforts—eventually successful, so far as drugs were concerned, but not for dressings—to convince the Registrar that it did not infringe the Restrictive Trade Practices Act.

Schemes for joint advertising in London and other areas had fallen through, said Mr. Stearn, because the necessary 80-90 per cent. support had not been forthcoming. Some localities were still able to operate such schemes, but he asked that the advertisements should be submitted beforehand to Queen Square so that high standards could be maintained.

MR. COULSON'S contribution to the meeting was concerned with the activities and potentialities of the Marketing

Policy Committee. In 1955 the Committee had been set up because the Executive had become aware of three trends hostile to members. A certain school of sales managers had demanded "maximum sales points" for products previously sold almost exclusively by chemists; trade prices were too often undergoing revisions in which 2-3 per cent. was being clipped from chemists' profits; and retail index figures were showing that the increase in turnover of the multiples was two to three times that of the "private" chemist. The committee had been formed to negotiate with manufacturers on prices and margins; to put in members' hands the means of meeting competition; and to provide a point of liaison with manufacturers in the marketing of their products. At the start the Committee had been suddenly hamstrung by the passing of the Restrictive Trade Practices Act, under which only members themselves could take many forms of action previously open to the N.P.U. as a trade association. Nevertheless negotiations in permitted matters had taken place with dozens of firms, and the trend now seemed to be towards offering better margins to the chemist.

As members knew, the Committee had launched Nucot cotton wool, a powdered glucose and a hot-water bottle at prices to enable competition to be met. The Committee was unanimous that that should be its guiding principle, so that housewives should always feel confident that they could buy from the private chemist as economically as from the multiple. In furthering that aim it was willing to sponsor any line for members—but only if no suitable alternative were already available commercially. Any sponsoring meant treading on the corns of manufacturers—including friendly ones—but the Committee believed its members must come first, leaving products at other prices to be "sold" by the chemist at his own discretion according to circumstances.

### Point of Contact

The basic fact in all competition was "consumer traffic"—the number of customers actually entering the pharmacy. The point of contact was the shop window. "Have you a modern shopfront? Is your window well lighted? Are your window displays topical, well thought out, eye-catching? If not, why not?" Mr. Coulson challenged members to answer.

Should members link up with television advertising? "Yes," was his answer, if the product merited support, though not at the expense of loyalty to former C.F. manufacturers. Were members careful to "price" goods on display? The price tickets offered from Queen Square were elegant and inexpensive. A new service provided for the making of individual showcards.

The current trend to self-selection, said Mr. Coulson, was here to stay.

He had yet to hear of a conversion that had failed to bring a 25 per cent. increase in sales, and often a doubling of sales per assistant had been recorded. The pharmacist handled something like 100,000 items. Not to have fixed prices for them was unthinkable. Sales figures could be analysed to reveal shopping trends, and the N.P.U. was rethinking what it could do for members along those lines, given their co-operation in supplying information. That was why that afternoon's meeting was more than usually important.

MR. A. J. FAULKS, Slough, asked how the N.P.U. was prevented by the Restrictive Practices Act from issuing a dressings price list, and it was explained that any agreement "to support or to crab" had to be registered, and its sponsors could be called upon to show that it was "in the public interest." What the Union could do was to issue a mass of information about manufacturers' prices and terms and leave the individual to make his own inferences and formulate his own price policy. The Union was similarly prevented from disseminating such information through the trade journals, though those journals could provide it independently.

MR. COULSON informed MR. F. G. BULL, Luton, that the N.P.U. had by no means suggested that members should take up the sale of trinkets or china. But information about trends in demand for "legitimate" merchandise could often prevent members from being caught unawares and losing sales thereby. He told MR. G. E. VALE, Oxford, that the idea of setting up N.P.U. "inspectors" had been toyed with, but it would only become practicable if demanded by an overwhelming majority of members.

MR. WRIGHT told MR. BULL that there was no chance of challenging the Restrictive Practices Act. Any price list would amount to a recommendation and involve a registrable agreement. A fundamental difference with the N.P.U. "calculator" was that it provided a service in helping the chemist buying in metric quantities to translate his purchase prices into apothecaries-system retail prices.

MR. COULSON explained to MR. D. J. CRAWFORD, Dunmow, the Marketing Policy Committee's view that it was not a function of the N.P.U. to create a nation-wide selling organisation. That field was catered for by wholesalers as well as the Union could cater for it. The future was seen as one of co-operation with wholesalers. No new N.P.U. lines were in contemplation, though they would be created if all members so desired. An N.P.U. range of "own goods" had been considered, but no wholesaler had been found ready to pack the required range at the required prices. The only answer at present seemed to be for members to take advantage of their own slack times to pack them at the pharmacy. It appeared that something might be

possible in the field of sundries, Mr. STEARN added that the aim should be standard packs for pharmacies, so that customers should not become confused by variations in prices between one chemist and another.

### N.H.S. Matters

Latest information on such matters as prescription prices, payment for proprietaries, and drug testing, was given from the platform by MR. J. WRIGHT (deputy secretary), who was greeted with applause. Mr. Wright said the Ministry had at last agreed to accept as a representative sample of contractors the 35 per cent. response that had been the disappointing result of the questionnaire issued in 1958. A joint report was being made to both management and staff sides of the Whitley Council before the end of the month. One necessary preliminary was to bring the 1958 figures up to date. No such inquiry could ever take place again. Instead, some method was needed of getting on-the-spot figures whenever they were wanted. That would probably mean sending people to call on pharmacies around the country. Methods of getting routine figures at N.P.U. headquarters were also being considered.

The Central Committee had agreed to the recently issued list of standard packs because the alternatives would have been even more objectionable. The requirement that every prescription should be endorsed with the size of the pack used in dispensing it would mean extra work, but it had advantages. The contractor would be paid on his endorsement, perhaps with a warning to change his basic purchase quantities in future. Contractors could rely on having their claimed out-of-pocket expenses allowed (if correctly within the scope of permitted expenses) or on being told about any non-payment. But if they claimed expenses outside the scope of allowed items they would neither be paid nor be told about the non-payment.

Mr. Wright said that the drug testing scheme had been modified so that, if a deviation from B.P.C. limits were not substantial, the case would normally be "recorded" and the contractor not called before the committee. If, too, a fault in a sealed dressing were found by the clearing-house to be due to the manufacturer, there would be no reference of the matter to the pharmaceutical service committee. There would also be issued a limited list of proprietaries liable for testing. The N.P.U. had in mind, he later told MR. CRAWFORD, that such proprietaries should be put on a similar basis to sealed dressings so far as the contractor was concerned.

When questions were invited on Mr. Wright's statement, many of them had to do with rural dispensing. MR. J. E. B. WARDMAN, Sudbury, said that in West Suffolk 40 per cent. of the population obtained their medicines from the doctors. Was there not a strong case for giving chemists the right to "counter prescribe" for the simple needs of N.H.S. patients? MR. WRIGHT'S answer was that it was his first encounter with the idea which, whatever

its attractions, had no chance of gaining acceptance. A real problem lay in the mile limit, which had now become irrelevant to actual conditions. The N.P.U. had approached the British Medical Association on at least four occasions, he told another questioner, to try and persuade the doctors to relinquish rural-area dispensing, but the Association's attitude was always "what we have we hold." To MR. BULL, Luton, he said that patients often had the choice of "contracting out" of dispensing by the doctor. The N.P.U. was trying to secure publication of a form that would show the patient he could have his prescriptions dispensed by a pharmacist. In some areas, it had been found that pharmacists themselves desired no change from the present arrangements. In others, doctors were finding it increasingly difficult to get dispensers.

One member asserted that the problem, far from becoming less, was becoming more acute. Mr. Wright's reply was that if abuses were known to members, such as patients being asked to sign forms agreeing to have their medicines from the doctor's surgery, they should be made known at N.P.U. headquarters, where action could be taken to correct them.

### An Illuminated Address

The address by the guest speaker, plus the tea interval, separated the sections on "N.P.U. Matters" and on "N.H.S. Matters." The speaker was MR. A. D. CHARTERS (British Lighting Council) and his subject "Shop Lighting." Mr. Charters said that good lighting and prosperous business tended to go hand in hand, though other factors, such as a new shopfront installed at the same time, exerted an influence hard to apportion with any precision. The fact that good lighting, once installed, was rarely removed, was an indication of its advantage. A point to bear in mind was that sources of light should not be visible to the window shopper. The goods themselves should be the focus of attraction. Windows lit by fluorescent tubes, which were capable of providing good all-over illumination if correctly used, often benefited by being supplemented by spot-lights trained on specific objects on display. Mr. Charters demonstrated his point with spotlights of various types, and projected on the screen colour slides illustrating good and bad uses of lighting in shops. After concluding his address, Mr. Charters answered many questions.

## SCIENCE IN SOVIET RUSSIA

### Address to students of School of Pharmacy, University of London

PRESIDING at the inaugural sessional meeting of the School of Pharmacy, University of London, on October 12, SIR HARRY JEPHCOTT (chairman of the board of governors) said the occasion was the first sessional opening held with the new building complete in all respects.

The report of the Dean (PROFESSOR W. H. LINNELL) said that the new "freshers" could regard themselves very much as the "chosen few," being forty-eight selected from over 400 applicants. The problem of the fresher was how to allocate time between formal studies and other activities. They had to congratulate one student (R. J. Hemingway) on having solved the problem by coming second in the Amateur Swimming Association's 220-yd. breast-stroke championship at the University Athletic Union's Cardiff meeting, while gaining a First-class Honours degree and becoming a research student. The Dean congratulated Dr. Fairbairn on having become a Professor during the year.

The previous session, he said, had been a particularly successful one for the school. The number of students had increased to 204, and that placed an increasing burden on the staff, since the building had been designed for 144 undergraduates and forty post-graduate students.

The inaugural address was given by PROFESSOR M. STACEY, F.R.S. (Mason professor and head of the chemistry department, Birmingham University), his subject being "Some Impressions of Russian Science and Technology." After mentioning that among his best friends were many in the pharmaceutical industry, Professor Stacey said that at the moment he was, though a good Conservative, "very much pro-

Soviet." As a member of a scientific delegation to Russia he had been given a "fantastic" reception, and his visit had been a daily round of morning visits to laboratories and academies of science, afternoon visits to museums and art galleries, and evening visits to ballets and parties. He spoke of the "tremendous earnestness" of Russian scientists. Moscow University's chemistry department comprised 1,200 undergraduates and several hundred post-graduates. There were twelve full chairs. The five-year course was a more arduous training than even that of Glasgow. It included, for example, much more mathematics. There were no written examinations, students being tested on something more equivalent to the American "quiz" system. The Soviet Academy of Science had, in the speaker's view, a closer grip on research projects than "any other bunch of scientists" in any country. At Leningrad there were a large number of graduates engaged in fundamental research. The Soviet Union had a wonderful institute for scientific information and the ability to keep abreast of world literature. That was a problem that had to be faced in Britain. Around 500 graduates were engaged in translating and abstracting, and abstracts were in every Russian scientific library of note within ten days or so of publication. Close liaison existed between scientific and technological people. Apparatus was profuse, and the interest in new instruments and apparatus was enormous. It was true that Russia had few large chemical plants.

A vote of thanks to Professor Stacey, moved by PROFESSOR FAIRBAIRN and seconded by MR. B. JAQUES, B.Pharm. (president, Students' Union) brought the meeting to a close.

# Pharmaceutical Society of Northern Ireland

## MONTHLY MEETING OF COUNCIL

OFFICERS of the Pharmaceutical Society of Northern Ireland were elected at the October meeting of the Society's Council held in Belfast. Mr. Alexander Templeton was elected *President*, Mr. William J. Thornton, *Vice-president*, and Mr. R. M. Watson was re-elected *Treasurer*. MR. J. CALDWELL (the retiring president) thanked



Mr. A. Templeton

the members of the Council for their support during his year of office, and referred to the help he had received from the secretary (Mr. W. Gorman). He then proposed Mr. Templeton, Garvagh, as president for the coming year, and Mr. D. Moore seconded. The election was unanimous. Mr. Templeton said he was conscious of the high honour that had been conferred on him, and promised to do his best. He then presented Mr. Caldwell with a replica of his badge of office and congratulated him on carrying out his duties so efficiently despite the

fact that he had been suffering from ill-health.

The auditors (Robert Walsh & Sons) and the solicitors (Cleaver, Fulton & Rankin) were re-appointed.

The following committees were appointed for 1960-61: *Education*, N. C. Cooper (chairman), W. H. Boyd, W. P. Ewart, H. W. Gamble, J. Kerr, G. E. McIlhagger, A. Templeton, W. J. Thornton, Professor Wade, Dr. Bacon; *Ethical*, J. Kerr (chairman), W. H. Boyd, J. Caldwell, N. C. Cooper, J. Gordon, W. T. Hunter, W. S. Hall, D. Moore, A. Templeton, W. J. Thornton; *Finance*, D. Moore (chairman), W. H. Boyd, H. G. Campbell, W. P. Ewart, J. Gordon, W. C. Tate, A. Templeton, W. J. Thornton, R. M. Watson, F. R. Moore; *House*, W. S. Hall (chairman), J. Caldwell, S. E. Campbell, J. Kerr, G. E. McIlhagger, P. R. W. Shinner, A. Templeton, W. J. Thornton, R. M. Watson, Dr. Bacon; *Law*, J. Gordon (chairman), H. G. Campbell, N. C. Cooper, H. W. Gamble, W. T. Hunter, D. Moore, A. Templeton, W. C. Tate, A. Templeton, W. J. Thornton.

MR. H. W. GAMBLE, who was welcomed back to the Council after a period of illness, raised the question of amendments to the Pharmacy Acts and how they would affect the Society. Under the Acts any fines imposed in court were divided between the Government and the Society. A third went to the Government and two-thirds to the Society. He believed those sections had been repealed, and since the new legislation no money had come in for some time from that source. As the expenses of running the Society were getting greater he suggested that the Ministry should be asked if they would be prepared to grant something in lieu. "Perhaps they would grant us a greater proportion of the licensing fees," he said. Mr. Gorman was asked to examine the situation.

### New Poisons List

MR. BOYD asked if there had been any further progress with the list of new poisons in the schedule. MR. MCILHAGGER said the list was near completion, and would soon be in the hands of the secretary. MR. BOYD said he had been discussing the matter with other members, and many were not clear on the changes in the schedule and needed their memories refreshed on what it actually entailed. It would be worth while circularising members with the various changes. The new PRESIDENT agreed with the proposal to circularise members with instructions about the new schedules. Some older members were experiencing difficulty.

Mr. Gamble was appointed to the Joint Formulary Committee which was being reconstituted to start work on the next British National Formulary. Mr. James Acheson was

appointed to the Statutory Committee in succession to Mr. R. Gibson, who had resigned after more than ten years' service.

The Council accepted with thanks the gift of a copy of the *Pharmacopœia Londinensis*, published in 1861, for the library. The donor was Dr. W. Honeyman.

### Examiners' Reports

The Council discussed the reports of the examiners for the June examinations. The following were some of the comments made by the examiners:—

*Botany*: In the theory paper insufficient care was still given to writing relevant answers. The mere appearance of the name of a type in a question was apparently regarded as an invitation to write down everything that had been learned, whether it was significant to the question or not. Deficiencies in answers to the essay question on bacteria indicated a narrowness of outlook and lack of appreciation of the wider significance of what students were taught which seemed inadmissible in pharmaceutical students. In the practical paper, all candidates showed a good grasp of anatomy and floral structures, but their approach to the other specimens given to them was obviously rigidly confined by their training in previous practical classes, since few were able to make straightforward elementary observations on the morphology and general characteristics of such specimens as a piece of rosemary or artemisia stem.

*Zoology*: Of thirty-three candidates, five failed to reach 50 per cent. in the theory, and twelve were below that figure in the practical section. Theory results, while quite good, suggested that the increased syllabus was at present proving a little indigestible—a greater range of knowledge was apparent, but often inaccurately remembered. That would probably adjust itself with time and practice.

*Chemistry*: All those previously referred in the subject were successful, the improvement in practical work being particularly noticeable. Of those re-sitting the whole examination 40 per cent. passed in chemistry. Failures were markedly weak in theoretical work. Of the old syllabus candidates, 54 per cent. of those taking the whole examination were successful. There was, however, a weakness in practical work, and in quantitative work the degree of accuracy obtained was not high. Errors in calculation were prevalent and many of the determinations had to be recalculated. The general impression was that the students needed more individual teaching in laboratory work, and that could only be achieved by an adequate proportion of teaching staff to students. Theoretical work was well done on the whole, with a few reaching a high standard.

*Physics*: As expected the introduction of the new syllabus had not depreciated the standard of answering, and the percentage of failures was virtually unchanged. There seemed to be more interest in the subject, and in future years that could be reflected in a higher standard of answering.

*Part II Pharmacutics*: With the exception of one student, who produced most praiseworthy papers, the quality of work in both theoretical and practical examinations was much below the level demanded at the qualifying stage. Of fifteen first entries, three passed completely, eight failed the whole subject, and four failed the theory only. There were thirty-eight re-entries, and of those nine passed the whole subject, fifteen failed the whole subject, five failed theory and nine failed practical. In the theory examination candidates, in general, failed to answer questions as set, including much irrelevant matter. In many cases it was difficult to justify the awards of any marks at all. A number of scripts were almost illegible and the mis-spelling of commonly used words occurred all too frequently. There was strong evidence that most candidates lacked knowledge

of basic physico-chemical principles underlying pharmaceutical processes. Even in the case of those candidates passing the examination it was apparent that little reading of the subject beyond lecture notes was carried out. In practical work there was also room for great improvement. Calculation sheets often failed to show clearly and concisely the quantities of material used and the calculations involved in arriving at those quantities. Students' attention needed to be drawn to the need to avoid extravagant use of Dangerous Drugs and of expensive materials. The presentation of dispensed medicines was generally of a low standard. Few students had the ability to wrap a preparation neatly, and the majority ignored the instruction to make their products identifiable by placing their name on the outer wrapper of the container as well as on the label itself. The labelling of sterilised preparations needed urgent attention, as regards both neatness and detail. Mathematical errors were also frequent, and automatically led to no marks being awarded. There were many instances of preparations being incorrectly labelled. Students should realise that the quality of a product was checked wherever possible, and if weights did not conform, loss of marks was inevitable. Inspection of practical books revealed a low standard of recording and great improvement in that sphere was needed.

In the *Part II, Part A Dispensing Practical examination* seven out of ten candidates were successful. There was evidence of greater competence than in the previous group of students, and standards should improve in future.

*Forensic Pharmacy:* There were sixty-one entrants, of whom thirty-eight passed. Some surprising errors of fact were noted in answers to a question dealing with the storage of poisons.

*Pharmacognosy, Final Part II* (old regulations): In written and practical examinations there were a few good papers but the general standard was rather low, and it was obvious that some aspects had been neglected. In the written examination too many candidates obtained good marks in one or two questions only, the remainder of their papers being sketchy. Some candidates' answers were badly presented—too often information not asked for was given and important details were omitted. *Part II A* (new regulations): The standard of work was good, and clearly most candidates were well prepared. In the practical examination, the microscopical section was the least well done. More attention could have been paid to accuracy of drawing and labelling.

*Pharmaceutical Chemistry Part II* (old syllabus):—44 per cent. of candidates passed. There was a general weakness throughout. From a cross-section of written papers it was clear that the work of the course had been well covered,

but it was also obvious that some candidates had put too little effort into the work and that others might be better employed in some other occupation. In the practical examination it was noted that most candidates weighed out much more of the substance to be assayed—usually five times the amount—made up to a definite volume and took an aliquot part. The qualitative work of the weak candidates was very poor, indicating that more time and perhaps more supervision was needed.

*Pharmaceutical Chemistry I* (new syllabus): 80 per cent. of candidates were successful, and that success pointed to the wisdom of spreading the work over the longer period. All candidates reached a satisfactory standard in the theory paper, the failures being due to weakness in practical work. There was a marked tendency in written work to avoid questions on physical chemistry. In the practical examination the quantitative work on the whole was well done, but there was need for greater accuracy, both in weighing and in titration. Generally speaking there was room for considerable improvement in qualitative analyses. Too many candidates based their erroneous results on a few unreliable colour reactions. Except in a few cases colour tests as a means of identification should be forgotten.

### "A Strong Indictment"

Commenting on the examiners' remarks on part II of the Final Qualifying examination, Mr. D. MOORE said he thought the criticism of the candidates' inability to wrap preparations neatly was a strong indictment, especially since those were students who had already served their apprenticeship. Mr. CALDWELL agreed, saying that over the past five years he had been amazed at how badly apprentices tackled that elementary task. Mr. W. H. BOYD said he used bags, and found it a far better and more hygienic method of wrapping. Few places now bothered about wrapping bottles—bags were provided. He thought the art of wrapping was a thing of the past, and he would not "shed any tears." Mr. H. G. CAMPBELL said he thought that good wrapping was much neater than a bag, and that it was an important point with customers. Mr. CALDWELL referred to the mis-spellings of some candidates, and said he had been amazed at how mistakes were made with such common words as "clothes" spelt "close." Mr. G. E. McILHAGGER said classes generally were too big, which meant that pupils and teachers were handicapped. He suggested that a synopsis of the report should be sent to all teachers.

Apologies were received from Professor O. L. Wade, Dr. R. G. R. Bacon, Messrs. S. E. Campbell, W. P. Ewart, W. S. Hall, H. F. Moore, Walter C. Tate, W. J. Thornton.

Mr. T. Hunter, a new member of the Council, was welcomed by the president.

## Correspondence

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

### The Change to Metric

SIR,—The reluctance of the British to accept the metric system, as shown once more by Mr. J. S. Clarke, seems to us foreigners very odd. I must say that already, forty-seven years ago, when first in touch with your system of weights and measures, I would not have thought it possible for it to live as long. What about your two different ounces: the pharmaceutical of 480 grains, and the avoirdupois of 437.5 grains and then 16 oz. to a pound, 14 lb. to a stone, 8 stones to a hundredweight, 20 cwt. to a ton—six different factors to pass from one unit to the next one! Dear Mr. Clarke, think that the metric system has only one factor: "10" and makes all reckoning so much easier.

Get used to it, and never more will you want to go back to the preposterous actual system.

J. J. BLOCH, Pharm.Ch., Dr. ès Sc.,  
Vevey, Switzerland

### The Pharmacist's Dilemma

SIR,—Several of your recent correspondents have the same basic problem—whether on the subject of professional status, N.H.S. remuneration or the imposition of the metric system. Professional men require a broad basic education, and in addition an apprenticeship-trained man acquires an understanding of human problems. Our difficulty is mainly in reaching understanding and compromise with men who have acquired some degree of auth-

ority by following a specialised and confined career, "one-track" minds. Politicians in particular, whether local amateurs or Cabinet ministers, require no broad general examination before exercising their authority. Refusal to compromise and a fanatical zeal will today put a man into power more quickly than anything else. University professors and statesmen alike think that a complex human problem may be solved by a simple formula. That may work in a lecture room or a laboratory, but the retail pharmacist cannot treat his customers like experimental animals and university graduates at the same time.

ERNEST A. DARLEY,  
London, N.1



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## Side Effects of Unrestricted Trade

APPROXIMATELY half the agreements that were registered when the Restrictive Practices Act took effect are no longer in existence. Most of them have been abandoned or purged, some condemned. Reviewed from any angle that is a remarkable effect of the legislation. Of the remaining agreements, no doubt a majority will be abandoned or modified when they are brought before the Restrictive Practices Court. Indeed, there is possibly a hard core of only around one hundred cases in which battle will be joined in that court.

However, that initial result may not be the most important outcome of the Act, for there has not yet been time enough, in most industries in which agreements have been abandoned, for substantial changes to become evident to the public at large. Certain of the changes affect what have been considered to be fundamental structures of some industries, and we would reinforce the plea by Mr. William J. Brown (see p. 545) for a full-scale study of the results of the Act. We believe that some of the answers that would emerge from such a detailed investigation as he suggests might well surprise many of those in Parliament who approved the legislation. Much the same careful appraisal ought to be made—and probably its results would be equally educative—of the answers given to the questionnaires issued by the Board of Trade in connection with the inquiry into aspects of resale price maintenance.

If the section of the Act that facilitates resale price maintenance is rescinded, then sooner or later the price war that is bound to break out will have consequences unforeseen by those who approved the amendment. It may be delayed in some trades in which there is (as at present) an increasing demand for goods, but it is inevitable when that demand falls away the situation will quickly deteriorate. The results will be seen in the failure not necessarily of the less efficient distributor, but of the one who is weaker financially. To what extent recent take-over bids are the effect of the Act is difficult to say, but there is a growing feeling that its influence has operated to a greater extent than most protagonists of the legislation are ready to admit.

Mr. Brown's hope that the Government will learn the true reason for price maintenance, namely that cut prices lead to demands for greater profit margins, which must in turn be reflected in higher prices, will be echoed in many pharmaceutical circles. If it is not to be just a hope, all concerned must take steps to ensure that the practical aspects of price maintenance are made as widely known as are some of the unproved theories

of those economists who, having had no experience behind the counter, have urged a price free-for-all.

Already that moral has been drawn by Mr. C. C. Green of the Proprietary Articles Trade Association, who pressed it home when he recently addressed a joint meeting of Pharmaceutical Society Branches at Wembley (see *C. & D.*, October 22, p. 509). The anti-maintenance economists have laid great emphasis on the more efficient methods of distribution of the larger organisations. They forget, or ignore, that the greater part of the stocks sold in the "super markets" (the distributors those economists seem to have chiefly in mind) are sold at standard prices, and some at prices well above those asked in the smaller shop. For the operators in question occupy the most expensive main-street sites and have heavy running costs to meet. It should be patently obvious to all who think about it that they cannot meet their commitments and make profits by cutting all their prices all the time.

## Onward from Galen

FEAR of cats appears to be a relatively common phenomenon, an observation endorsed by a recent B.B.C. radio discussion. The *British Medical Journal* (August 13) published an article, based on a paper presented to the annual conference of the British Psychological Society, describing the treatment by experimental psychology of a thirty-seven year old married woman who was terrified of cats. At the age of four she had witnessed the drowning of a kitten, since when a phobia had developed and finally reached such magnitude that she was forced to seek medical advice and subsequent hospital treatment. Therapy was based upon the theory that neurotic symptoms are learned behaviour patterns, designed to relieve anxiety. Phobia would achieve that aim initially by avoidance of the cause of worry; however, the habit would gradually become so pronounced as to be unadaptive to the situation. Hence, in the case described, the patient would panic at the sight of a cat and be plagued by the thought of meeting one. Doctors decided to apply a technique of "reciprocal inhibition," whereby habits would be retrained to become adaptive patterns of behaviour once more. The method required the patient's full co-operation, and first involved listing, in order of significance, the mental stimuli producing fear-reaction (e.g., sight of cats gave violent response, but fur gave milder response). The patient was then encouraged to establish a new response at the weakest end of the fear gradient—she learned to accept fur by being presented with fur-like materials; then to tolerate toy kittens and pictures of cats, and finally to grasp a live kitten. One month after treatment commenced, the patient was allowed to complete her cure at home by retaining the kitten and watching it mature. Seven months later her phobia had completely subsided, and it was concluded that the application of experimental psychology to the case had proved a worthy alternative to the normal process of psychotherapy.

### A PHARMACIST'S ANTHOLOGY

#### TWIXT PESTLE AND PORPHYRY

From "*An Epistle containing the strange medical experience of Karshish, the Arab physician*" by Robert Browning

His service payeth me a sublimate  
Blown up his nose to help the ailing eye.  
Best wait: I reach Jerusalem at morn,  
There set in order my experiences,  
Gather what most deserves, and give thee all—  
Or I might add, Judæa's gum-tragacanth  
Scales off in purer flakes, shine's clearer-grained,  
Cracks 'twixt the pestle and the porphyry,  
In fine exceeds our produce.



## “OPEN SHOP”

AN UNSCRIPTED COMMENTARY ON THE  
SPECIAL PROBLEMS OF THE PHARMACIST  
IN RETAIL PRACTICE

E. C. TENNER

**A** COPY has reached me of the industrial price list, 1960, of Boots Pure Drug Co., Ltd. Presumably it is sent around to factories. It states: “Boots’ organisation offers a unique service to industrial health units. . . .” Under the heading “General Terms and Conditions,” discounts to be deducted from retail selling prices for various classes of goods are specified. The class that particularly interests me is “Proprietary Medicines and Proprietary Toilet Articles.” All goods by pharmaceutical firms and cosmetic houses other than Messrs. Boots’ own make are included. Where makers have special terms, the company can usually supply at the same rate. On lines that are exempt from purchase tax, 10 per cent. discount is allowed from the retail selling prices. On all other items 8½ per cent. discount is allowed from the tax-inclusive retail selling prices. No discount is allowed on insulin, clinic packs of food, Elizabeth Arden and the range of Helena Rubinstein preparations.

Now I have always been assured that Boots profess to observe manufacturers’ maintained retail prices. I know, of course, that nurses and doctors are given what is called “professional” discount, but I did not think Messrs. Boots believed in price-cutting generally. Presumably insulin and clinic food prices are inviolate, but what is meant by the exclusion of Arden and Rubinstein preparations from this “industrial” discount? Are those the only two firms that will not allow their prices to be cut? Are not (say) Euthymol tooth-paste and Beechams pills to be any longer price-maintained by their manufacturers? Are Arden and Rubinstein the only manufacturers who are able to dictate terms to our multiple friends?

There is another section headed “Pharmacy and Poisons Act, 1933, and Dangerous Drugs Acts” specifying how items affected by those statutes may be purchased, but no warning is included that, should there be any resale of a “listed” poison, the seller must be either an authorised seller of poisons or a listed seller (unless he is a medical or veterinary practitioner). Many of my customers work in factories. I regard it as significant that the cover colour of the company’s industrial price list is a bright red. Waved in front of my eyes, it arouses much the same reaction as a red rag waved in front of a bull.

### *Space for the Label*

I should have thought that, by now, manufacturers of proprietary medicines that are poisons would have been aware that space upon their packs ought to be provided for the seller to mark his name and address. The other day I saw a new pack of a widely advertised proprietary poison. It was most inartistically covered over with “blurb.” There was no space for my name and address dot, and I had to open out the pack before I could find the Schedule-7 cautionary words. It is the duty of the Pharmaceutical Society to administer the Pharmacy and Poisons Acts, why do they fail to obtain desirable improvements in these proprietary poisons’ packs? Cautionary words on a proprietary poison are often a valuable reminder to the vendor that his “dot” must be affixed to it. A space left for the “dot” would operate similarly, though it is often pleasant to cover up some of the “blurb”! Again, in respect of the Pharmacy and Medicines Act, 1941, also administered by the Pharmaceutical Society of Great Britain, I have noticed that

packs of some proprietary medicines must be opened before the formula disclosure can be discovered. We ought to hear more about negotiations between our Society and proprietary medicine manufacturers in protection of our interests as sellers of poisons. If such negotiations have been entered into, we should have been told something about them. If not, the time is surely due for some vigorous action along those lines.

### *List into “Calculator”*

To give it its full name “The N.P.U. Drug and Galenical Price Calculator” has a hearty welcome from me. In many ways it is much more useful than the price list it supersedes. As I have said before, I particularly appreciate the cost-basis columns. They do help me a stage further into the metric age. Talking of the metric system (even after the Pharmaceutical Conference) I believe medical students should be taught to express deci-, centi-, and milli-grammes only as decimal fractions of grammes, and that where less than 1 gm. is to be written, the decimal point should be preceded by a figure naught. Thus, point 1 mgm. would be written unmistakably G 0·0001 or 250 mgm. G 0·250. I undertake vitally important searches for decimal points in badly written prescriptions so often that I am convinced that my “point” is an important and practical one. Years ago I was taught that way of writing metric quantities, I believe that, if doctors were similarly instructed, I should not see so many dangerously written prescriptions in the course of a week.

### *Over the Water*

Recently touring for the first time in Eire I was most impressed by the gracious manners of the shopkeepers. There was time for conversation with each customer, and it passed mostly in the time while one’s purchase, however small, was carefully wrapped in paper and tied with string. I found it most healthy and refreshing to live for a few weeks in the quieter tempo of the Irish philosophy: “Time enough.” That sort of graciousness has practically disappeared from the cut-throat business of shopkeeping in England. Yet I found that life is difficult for the retail pharmacists in Eire. Chemists’ gross profits have been the subject of adverse and, I think, misinformed Press comments. One country chemist told me he did no “human” dispensing at all, but lived mainly on his veterinary practice, all the human dispensing being done by the State-employed dispensary doctor. Later I met a dispensary doctor who told me he wished the State would allow him to give up the dispensing part of his job. He said he had not been trained for it and would rather confine himself to diagnosis and prescribing, etc. In a small town I found two chemists’ businesses. I was told that one was shortly closing down. I noticed that both pharmacies had devoted a large proportion of their small display windows to “fashion jewellery.” So I came away wondering how long the delightful “time enough” philosophy will be able to last. How long will it be before high-pressure methods have to be adopted in Eire? The ugly American business methods have destroyed so much that was valuable in traditional retail pharmacy in England. Long may Eire resist them! It took me more than a week to speed up again after my very pleasant Irish relaxation.



# Pharmaceutical Society of Ireland

## DEGREE COURSE DETAILS GIVEN TO ANNUAL MEETING

**D**ETAILS of the proposed degree course for pharmacy were announced by MR. H. P. CORRIGAN (president, Pharmaceutical Society of Ireland) at the Society's annual meeting in Dublin on October 10.

Describing the decision to establish the degree course as "one of the most far-reaching taken this year," the President explained that the Council had adopted the recommendation of the Education Committee to establish such a course. "This decision was the culmination of many years of hard work and many meetings. On behalf of this Committee I express thanks to local associations and to individual members who wrote giving views on the proposed course and on ancillary matters, such as apprenticeship. It is interesting to note that the decision to shorten the period of apprenticeship was accepted but some protested that it is futile to raise the standard of education when we are denied the bulk of the compounding and dispensing of medicines. It is for this reason that the Council wants to raise pharmaceutical standards; it wants to raise the status of the pharmacist and provide him with greater scope and with more outlets.

"I gave you an outline of the proposed course last year. Briefly, the aim is three years at college followed by one year's practical training in a pharmacy. The Society's representatives met the authorities of University College, Dublin, and were accorded a most courteous reception. It was found possible to evolve a scheme which requires the student to devote the first year to the study of chemistry, physics and biology at U.C.D. Credit for this year is gained by passing an examination equivalent to first science. The second and third years will be devoted mainly to professional subjects (pharmaceutical chemistry, pharmacology, pharmacognosy, pharmaceuticals, etc.) which will be taught for the most part at the College of Pharmacy. At the conclusion of the third year the student takes his degree examination, which will entitle him to the degree of B.Sc.(Pharm.). The graduate must next spend at least a year undergoing practical training in a pharmacy before he sits for the Licence examination in forensic medicine. On passing, he becomes eligible for registration as a pharmaceutical chemist."

### *Advantages of the Scheme*

Although the apprenticeship period was being reduced, the student commencing the period of practical training would have been taught already how to compound and dispense and so would arrive at the pharmacy with a good foundation. The cost of an extra year at College would be offset by the attainment of salary-earning capacity a year sooner than under the present system. Furthermore, the student would go straight from school to the University and would complete the academic section of the course before starting the practical section—in other words, he would suffer no interruption in his studies. He would also become eligible for University and county council scholarships, thereby removing a disability that had previously deprived pharmacy of brilliant potential students.

When the Council had been convinced that the scheme could be implemented they had submitted it, in May, to the Minister for Health for approval. The Minister had informed the Council that the scheme was being examined by his Department and the Departments of Finance and Education. He was also seeking the views of the other Ministers. The Council had hoped for a decision before College reopened that month (October), but now they hoped for a reply in the near future.

"We are convinced that the changeover will result in a bigger intake of students. We know, in fact, of students who are holding back until next year in the hope that they

will be able to follow the degree course. We are also aware that students living in the Cork and Galway zones will seek recognition of lectures taken out at U.C.C. and U.C.G. respectively, but this is only one of the many problems examined by the Education Committee and by the Council," said the President.

### *Minister's Letter*

THE REGISTRAR (Mr. J. G. Coleman) then intervened to read a letter that Mr. F. Loughman, T.D. (president-elect) had received from the Minister for Health (Mr. S. MacEntee) in regard to the proposed course. Dated September 27, it stated: "I have received your letter of 19th inst. asking me to meet representatives of the Pharmaceutical Society of Ireland to discuss the proposed arrangement for the training of pharmaceutical chemists at University College, Dublin. The position is that the objections to these arrangements, as conveyed by my Department to the Society, were based on considerations advanced by the Minister for Education who was concerned with the proposal in its relationship to University education. Recently the Minister for Education, following further consideration of the matter, has let me know that he has withdrawn his objections, and in the circumstances I have agreed in principle not to withhold my approval. Provided therefore the regulations made by the Society to implement the proposals are not ultra vires its statutory power, and provided also that the Minister for Finance indicates his agreement to the proposals (the finance implications of which he is at the moment considering), you may take it that they will receive my formal approval. While therefore I would be glad to meet a deputation from the Society, if this were necessary, I suggest that in the circumstances which I have mentioned it would be best to await further developments."

MR. LOUGHMAN said it would seem that in the near future the Society could anticipate that the regulations would be approved.

MR. T. B. O'SULLIVAN said the Council should congratulate Mr. Corrigan and the registrar on the "magnificent" letter they had sent to the Minister setting out the Council's views on the matter.

MR. CORRIGAN went on to say that discussions which the Council had had with the Apothecaries' Hall, Dublin [on the proposed Pharmacy Amendment Bill] had resulted in agreement between that body and the Society. Both sent the Minister for Health the text of the agreement measure, and that move, coupled with the Minister's statement in the Dail last May, made the Council optimistic that the "long overdue" Bill would reach the House during the coming season. Mr. Corrigan paid tribute to the representatives of both sides for the manner in which differences were "ironed out."

The president reported that during the year the Society had lost, through death, twenty-five pharmaceutical chemists, two dispensing chemists and druggists; five registered druggists, and two assistants. Among them were two former presidents (Mr. Denis Nugent and Mr. Joseph Costello) and a former member of the Council (Mr. Joseph Gorry). Between October 1, 1959, and October 1, 1960, eighty-one new licentiates were registered, including twenty-one who qualified via the Apothecaries' Hall; thirteen registered druggists, and thirteen pharmaceutical assistants. During the same period forty-eight names were added to the pharmaceutical assistants' preliminary register, and thirty-one to the pharmaceutical chemists' preliminary register. Preliminary registrations were made principally after the results of the June examinations, and from inquiries received it seemed probable that there would be more than the thirty-one students who were enrolled for the science course.

Forty-one students had returned to the College for the pharmacy course. The new course for assistants, introduced in 1958, demanded attendance at a course of lectures on completion of apprenticeship. The first set of lectures would be held from March to June, 1961, and the second set was scheduled to commence next October. There were now 122 young people serving their apprenticeships under the new assistant regulations.

Mr. Corrigan explained that in March the Society held the last Licence examination under the "old" pre-1952 regulations, concluding the extension period. Between July 1, 1958, the original closing date for the examination, and March 31, ninety-six candidates succeeded in qualifying. Inevitably there were a few hard-luck cases, but it would be generally agreed that the Council made every effort within reason "to shut the door as gently as possible." Those who were unlucky might still qualify by availing of the provisions of the 1952 regulations.

Recalling that for many years the Council had urged pharmacists to participate in local and national affairs, the president said that in the sphere of health the pharmacist's participation seemed obvious. Nevertheless it had proved difficult to secure the nomination of pharmaceutical chemists on local health committees. He was glad that many local pharmaceutical associations had made the effort to have members appointed, and that one at least had been appointed, Mr. K. Matthews, to the Louth consultative health committee.

"During the year Mr. O'Briain terminated his services as inspector and liaison officer, Mr. O'Briain left at his own request and we were sorry to lose him. For nearly five years he carried out a difficult task with tact and impartiality and did much to further good relations in pharmacy.

It is not possible to deal with the activities of all the Committees working for pharmacy but I should like to thank all those who sacrificed time and energy so generously. I must refer to some of them: The Post-graduate Education Committee continues to enhance its reputation and the greatest credit is due to this band of enthusiastic workers. Another committee is unique, the Gardens Committee. A group of pharmacists and students decided to beautify the College grounds and devoted many fine evenings to hard manual work. This is an example of literally taking one's coat off to do a job. To relieve the Society of the expense of new shrubs and plants, they ran a raffle and collected nearly £200. We are under a debt of gratitude to these men. The Benevolent Fund Dance Committee has been working so efficiently and unobtrusively for so long that we might be tempted to think that it is no trouble. This year saw the celebration of the twenty-first anniversary of its existence and so I think it is proper that we should place on record our deep appreciation of the wonderful work they have accomplished while they were growing to maturity."

### *College of Pharmacy Fund*

Dealing with the Irish College of Pharmacy Fund, Mr. Corrigan recalled that last year he had explained why the Society was contributing £1,050 towards it, and mentioned that the committee of management was directing its appeal to licentiates, manufacturers, and to all whose products were normally channelled through pharmacies. They had received contributions from some firms; others had indicated that they intended to contribute, but, for reasons connected with their own financial years, had deferred making a donation until later. Support had been forthcoming from the Association of Irish Pharmaceutical Importers. The following had already contributed:—Antigen, Ltd. (£262 10s.); Chesebrough-Pond's, Ltd. (£10); Glycerin, Ltd. (£10 10s.); Horlicks, Ltd. (£5 5s.); May Roberts (Ireland), Ltd. (£105 to be repeated each year for four years); Pharmaceutical Society of Ireland (£1,050 to be repeated each year for four years); Sr. Laura's Food (£10 10s.); Solport

Brothers, Ltd. (£5); Irish Pharmaceutical and Medical Representatives' Association (£10); Squibb (Ireland), Ltd. (£250); John Steedman & Co., Ltd. (£2 2s.); F. W. Hampshire & Co., Ltd. (£2 2s.); Helena Rubenstein (Eire), Ltd. (£5 5s.); Chas. H. Phillips Chemical Co., Ltd. (£10 10s.); Max Factor Hollywood and London (Sales), Ltd. (£5 5s.); Lenthic, Ltd (£3); Riker Laboratories, Ltd. (£10 10s.); Lever Brothers (Ireland), Ltd., coupled with D. & W. Gibbs, Ltd. (£50); Smith Kline & French Laboratories, Ltd. (£100); Rexall Drug Co., Ltd. (£10 10s.); Edward Taylor Ltd. (£5 5s.); Geigy Pharmaceutical Co., Ltd. (£157 10s.). In addition, the following had asked how the following sums should be applied: CIBA Laboratories, Ltd. (£100); Beecham (Sales), Ltd. (£200); Aspro-Nicholas, Ltd. (£525 in instalments of £105 per annum). "To each and everyone I say thanks on your behalf. Many demands are made on those companies, and the Committee appreciate how difficult it is for a company to meet those demands. On your behalf I express the gratitude of Irish pharmacy for the generous support given, and for the encouraging letters received," the president added.

### *Committee Re-elected*

Mr. Corrigan announced that as there was no ballot he would formally declare the following seven members of the Council re-elected for a period of three years: Messrs M. Costello, J. P. O'Donnell, F. Loughman, J. J. O'Regan, T. R. Miller, M. F. Broderick and R. J. Power.

Proposing the adoption of the president's report, Mr. J. E. Fox, Athlone, said Mr. Corrigan had given members a detailed account of the Society's activities during the year. It was gratifying to note the "tremendous support" received from the various ethical and manufacturing firms for the College of Pharmacy Fund. Members were happy to learn of the successful outcome of the long discussions that had taken place with the Apothecaries' Hall, and were satisfied with the work the Council had put into the case. He was sure that the proposals regarding the degree course would be welcomed by most members. While some might have different ideas regarding the details, he thought all would agree that the course would enhance the status of pharmacy, and that in the long run they would gain a lot from it. Concluding, Mr. Fox paid "a deserved tribute" to the outgoing president for his "solid" work as a member of the Council and as a worthy president.

Seconding, Mr. J. P. McCaul, Dublin, said he was glad that agreement had been reached with the Apothecaries Hall, Mr. R. C. O'Higgins, Dublin, joined in congratulating the outgoing president on the splendid results achieved both in regard to the negotiations with the Apothecaries Hall and on the new Educational Bill. He added that he would like the terms of the agreement with the Hall to be made available to members. Urging that more publicity should be given to the Council's activities, and to its monthly deliberations, Mr. O'Higgins said that that would encourage members to take a greater interest in the work being performed by the Council and enable members to take a more active interest in pharmacy. Of the first Irish Pharmacy Week he said that while it was not a brilliant success it was a moderately successful venture, and while members hoped that next year's fixture would be an ever greater success they would like to see more people take an active interest in it. Mr. O'Higgins said he got the impression that pharmacists were afraid to express their views at the annual meetings. He thought there was some unfounded fear that if they expressed criticism of the work of the Council it might react to their disadvantage. That unnecessary fear should be dispelled.

Mr. D. F. Walsh agreed that some members were afraid to express criticism of the Council and regarded it as a type of exclusive club whose activities they should be slow to criticise. There was a lot of nonsense spoken along those lines, such apprehensions being entirely without foundation. He asked that in future the Irish Pharmaceutical and Medi-

cal Representatives' Association should be officially acquainted with the activities of the Council the same as other pharmaceutical groups. They had not been consulted about the Pharmacy Act or the new education programme, although they were particularly interested in matters affecting education of pharmacists. Stating that he was glad to hear the president pay tribute to the work of the Post-graduate Committee, Mr. Walsh said he was glad the Council had agreed to meet the Committee with a view to arriving at an amicable agreement regarding certain matters that had caused some misunderstanding. He hoped that the new Pharmacy Bill would be given an early reading in the Dail, and said he was pleased to hear of the many subscriptions that had been made to the Pharmacy Trust Fund. He thought an even better response would be forthcoming if more publicity were given to the matter. Welcoming the co-option during the year of a hospital pharmacist to the Council, he expressed the hope that the Council would eventually be completely representative of all pharmaceutical groups.

THE REGISTRAR assured Mr. Walsh that his organisation would be consulted in future in all matters relating to pharmacy.

THE PRESIDENT explained that under the Society's charter of 1791 the members of the Apothecaries' Hall were entitled to engage in the practice of medicine, surgery and pharmacy. The 1875 charter of the Society entitled members to keep open shop for the sale of poisons and the compounding of medical prescriptions. Under the Pharmacy Act apothecaries could register with the Society on payment of a stipulated fee, but the Society was seeking under the new Act to have apothecaries removed from the register of pharmaceutical chemists. They had succeeded in doing that, but that was all. When the new Act was implemented an apothecary could still carry on as such, but not as a pharmaceutical chemist. After a specified date they would no longer be able to register as pharmaceutical chemists, but would be entitled to engage in compounding under the title of medical hall.

MR. T. R. MILLER said that as the law stood a doctor could engage in all matters appertaining to medicine and the Society had no power to prevent him from keeping open shop if he wanted to. At present on payment of a fee of £21 he was entitled to call himself an L.P.S.I. Under the new Act he would no longer be able to register as such but that could not prevent him from keeping an open shop.

### *Competition from Apothecaries?*

Mr. E. BROWNE said that apart from a change in name it appeared that an apothecary under the new Act would still be able to engage in retail pharmacy. Although he would not be allowed to call himself a pharmaceutical chemist he would be allowed to work as one. That was not of much advantage to members of the Society and it looked as if in future a group of apothecaries would be engaged in competition against pharmaceutical chemists.

MR. R. PURCELL asked if, under the new Act, one doctor would be entitled to make up another doctor's prescription?

MR. D. J. KENNELLY said that long before pharmaceutical chemists came into official existence apothecaries had the right to compound their own and other doctors' prescriptions. The Society could not interfere with the original charter of apothecaries, but under the new Pharmacy Act apothecaries would be prevented from registering as pharmaceutical chemists. It would be impossible for the Society to take away the rights to compound medicines enjoyed by apothecaries under their ancient charter. It would be interfering with a right they had had before the Pharmaceutical Society came into being.

In reply to Mr. Purcell, THE PRESIDENT said that under the Pharmacy Act a medical doctor could not compound another doctor's prescription.

MR. J. K. MCGARRY said it appeared that when apothecaries were removed from the Society's register under the

new Act they would still be able to come in a "back-door." They would be able to open medical halls instead of pharmacies and from the practical point of view the new position would be little better than the existing one. It was immaterial whether apothecary shops were called pharmacies or medical halls if they were allowed to compete with members of the Society. THE PRESIDENT said he took a totally different view.

MR. G. C. O'NEILL said that while the new Act would not be everything pharmacists wanted, it was a step in the right direction. He was convinced that the numbers were getting so small that apothecaries would not be able to procure pharmaceutical chemists. MR. WALSH said he also believed apothecaries would fail through lack of staff.

The president's report was adopted unanimously.

### *Treasurer's Report*

The report of the honorary treasurer (Mr. M. Costello) revealed a deficiency for the year of £3,389 18s. 9d. MR. COSTELLO said he thought the time was coming when the financing of the full educational course would impose too great a strain on the Society's finances. Included in the deficit was a sum of £1,050 that had been given by the Society to the Pharmaceutical Trust Fund, while the schools courses had shown a loss of £878, compared with a profit of £510 in 1959. Having quoted other details of the account, Mr. Costello said that while the overall loss was not much greater than the previous year, the position was not a healthy one. The Council were hoping that with the proposed change in the educational course some of the financial burden at present borne by the Society would be taken over by the University. Education was a State service, and the state of the Society's accounts at present should help to convince the Department of the urgency of giving the Society what they were seeking under the Pharmacy Bill. Mr. Costello said that £958 10s. had been disbursed from the Benevolent Fund during the year, compared with £647 the previous year, while the proceeds from dances and subscriptions totalled £823. Having thanked the various committees who had raised that sum he appealed to any members who could afford it to include a sum additional to their membership subscription for the Benevolent Fund. MR. R. PURCELL proposed the adoption of the report, and that was agreed.

MR. LYALL SMITH asked what hope there was of reducing the deficiency next year? Apart from the hope of receiving legislative help he would like to know what steps the Council proposed taking. The chief problem was that not all licentiates were members. One way of easing the position might be to encourage licentiates to become members of the Society. He also suggested that at the back of the Society's Calendar should be included a bequest form which some members might be inclined to fill in for the benefit of pharmacy. MR. COSTELLO said that in addition to contributing £1,050 to the Trust Fund the Society had written off £981 under the heading of depreciation, so that what was lost during the year in hard cash was what had been lost on the schools. At present there were about 800 pharmacists "outside the fold," so that when the new Pharmacy Bill was enacted the Society would have that many more £4 4s. subscriptions. With the loss on the science course being borne by the University under the new Bill he hoped that in five years' time the Society would have a credit balance.

Proposing a vote of thanks to Mr. Corrigan for presiding, MR. M. POWER said that Mr. Corrigan had given virtually all his time and energy to the affairs of the Society during the past twelve months. MR. A. C. HENNESSY, seconding, said that Mr. Corrigan had carried the banner highly and was extremely well thought of and spoken of in all parts of the country.

On the motion of MR. P. A. BRADY, a vote of thanks was passed to the registrar and staff for their work on behalf of the Society during the year.

## MONTHLY MEETING OF COUNCIL

(Concluded from THE CHEMIST AND DRUGGIST,

October 22, p. 504)

WHEN the report of the committee of inquiry appointed to examine the proposals regarding the possibility of forming a representative pharmaceutical association, with a view to improving liaison among the various pharmaceutical groups had been read to the Council, MR. MILLER said they had received something of a concrete nature on which to build such an association. The most encouraging aspect was that the social group were prepared to hand over their funds to help establish such an association and secure a headquarters. On the motion of the president, it was agreed to allow the commission to hold a general meeting of members of the Society in the College of Pharmacy at 8 p.m. on November 18 when the progress made by the investigating committee would be reported in detail. It was agreed to circularise copies of the commission's report to members.

Stating that in recent weeks Ireland had been accorded a great honour through the appointment of Mr. Frederick Boland as president of the United Nations Organisation, THE PRESIDENT proposed that the Council should offer him their congratulations. That was agreed.

Dr. Edwin Chatt-Ramsey having submitted an L.A.H. certificate, was granted registration as a pharmaceutical chemist.

The following changes of address were noted:—Messrs. P. J. Leahy, M.P.S.I., to 1 Merton Drive, Ranelagh, Dublin; O. Flannery, M.P.S.I., to "The Mount," Tubbercurry, Sligo; R. McLoughlin, M.P.S.I., to 131 Oliver Plunkett Road, Mounttown, co. Dublin; D. O'Shea, L.P.S.I., to P.O. Box 1681, Accra, Ghana.

The licence certificates of Nora Mary O'Sullivan, Arthur Kennedy, and Michael O'Gorman, were signed and sealed.

The following were nominated for registration in (a) Pharmaceutical Chemists' Preliminary Register:—Mary

Ann O'Callaghan, Thomas F. Leahy, James J. Pallas, Donal A. McGoe, Cait Breatnach, Fintan M. Molloy, Mary P. Perry, John J. Kingston, Robert Carvill, Thomas Kelly, John B. O'Byrne, Peter Davey, Blathnaid A. Hughes, Margaret Plunkett, William J. Butler, Patrick S. Stokes, James McCormick; (b) Pharmaceutical Assistants' Preliminary Register:—Patrick J. Sisk, Christopher J. Clarkin, Elinor McCormack, John J. Collins, Mary C. Crowley, Richard Wilson, Maire Sheehan, Geraldine B. Gates, Augustine M. Williams, Mary E. Power, Mary M. Donovan, Maureen Lang, Mary Dalton, Edmund B. Stack, Esther Blake, Kieran Fitzgerald.

Marriage certificates having been submitted the following were granted changes of name in the registers:—Mrs. Mary Burke (née Webb), L.P.S.I., 25 South Street, New Ross, co. Wexford; Mrs. Bridget Fitzgerald (née Murphy), Barraduff, Headford, co. Kerry.

It was agreed that the following should be elected to membership:—Miss Joan Madden, M.P.S.I.; Mrs. T. Casey, M.P.S.I.; Mr. J. P. Fehily, M.P.S.I.; Mr. M. P. McGoldrick, M.P.S.I.; Mr. J. P. McCormack, M.P.S.I.; Mr. J. D. Dillon, M.P.S.I.; Mr. J. Haire, M.P.S.I. and Miss P. McGuinness, M.P.S.I.

The following were nominated for membership:—Miss D. Tobin, The Chalet, Monkstown Avenue, co. Dublin; and Messrs. J. Kennedy, Main Street, Portlaoise, co. Leix; R. McLoughlin, 131 Oliver Plunkett Road, Mounttown, co. Dublin; T. Lyons, "Padua," Highfield Lawn, Model Farm Road, Cork.

Apologies for absence were received from Miss L. Cunniffe and Mr. J. J. O'Regan. Present were Messrs. G. C. O'Neill, M. Costello, K. Banks, P. A. Brady, M. F. Broderick, H. P. Corrigan, C. J. Cremen, J. Gleeson, D. J. Kennelly, T. R. Miller, T. B. O'Sullivan, M. Power, R. J. Power, F. J. Robinson and R. J. Semple.

At a meeting of the Benevolent Fund which followed, grants totalling £72 were passed for payment.

## HOSPITAL PHARMACY FORUM NEW INTERESTS FOR OLD

ANYONE who has grown a colony of bacteria or moulds on a nutrient agar plate will be familiar with the phenomenon of self-limiting growth. The colonies newly seeded thrive for a time, then fade and shrink, and unless they are subcultured they die. Arnold Toynbee, in his "Study of History" traces a similar development in human civilisations. His thesis is that civilisations arise and grow in response to the challenge of environment. Hard physical conditions prompted the Athenians to cultivate the olive and, as a consequence, to enter into export trade in order to exchange oil for grain. Thus a new civilisation developed through commerce.

Only when life becomes easy and the challenge is lost does dissolution set in and the civilisation become effete. It was appreciation of that truth which prompted Amos the prophet to denounce those of his generation who were "at ease in Zion . . . that lie on beds of ivory and stretch themselves on couches." It would be unfair to attribute to pharmacists a life of luxurious indolence, but one wonders at times if there is not a little too much ease in Zion. Allowing for the jaundice of the descending years which is apt to affect the middle-aged, there seems to be a lack of enthusiasm and endeavour on the part of some hospital pharmacists. Too few have been willing to take responsibility and exercise leadership in branch affairs: too few have given up time to producing technical papers for branch meetings of the Pharmaceutical Society or the Guild of Public Pharmacists. A number of factors could be cited as responsible for that state of affairs. Full employment is probably the most important of them. In the days when a vacancy advertisement for a post in the hospital service brought literally

dozens of replies, men who were keen felt that they had a personal stake in "making something of the profession." Today there is little interest in the hospital service because every newly qualified pharmacist knows he can find a job anywhere and at any time. When, however, that independence degenerates into indifference, we enter the phase at which dissolution must follow.

A second factor that makes for uncertainty is the rapid growth of specialities during the past decade. Hospital pharmacy has remained the one branch in which the pharmacist still has scope for the full range of his activities. Many have taken pride in their skill at formulation and manufacture. But every month sees an increase in the number of specialities and a waning in the scope for "home" production. The pharmacist's function is changing, and he must face the challenge if new vitality is to be found. If we are to have a vigorous and healthy profession, new interests must be developed to replace the old ones. There is obviously a need for a new type of technologist in hospital sterilisation and much has already been said of the pharmacist's interest in that field. No progress is likely, however, unless pharmacists equip themselves and make a contribution to the published work on the subject. Teaching is another activity that might well be developed. Many pharmacists already give courses of lectures to nurses, but too few have considered carefully the rôle of the pharmacist as teacher. It could happen that in the future we shall follow the pattern long established in France, where the hospitals are closely integrated with pharmacy schools and are used extensively for student-training, the chiefs being teachers in the university. The need to extend the frontiers of hospital pharmacy

is perhaps not yet the most obvious, but it is the most important for the future well-being of the profession.

The third factor in our present depression is the frustration produced by the Whitley salary system. For too long salaries have lagged behind those available in retail and industry and have resulted in an almost complete failure to recruit men to make a career in hospital work. Not only are the salaries too low but the scales are too long, and there are too few posts that even reach—let alone pass—the £2,000 mark. A further frustration is the lack of any means of merit promotion within the scale. Although some improvements have been achieved in recent years, there is always the sense that the Ministry is not really interested in the quality of the service and is content so long as, somehow or other, posts are filled. The request made by the staff side some years ago that an independent observer should be invited to review the state of hospital pharmacy was rejected by the Minister. The need has not diminished, but will increase. The condition of adversity must be taken as a challenge by hospital pharmacists to new and vigorous endeavour towards a scheme that will provide incentive and career value.

**VACCINE GIFT:** The Government of Nigeria recently donated 300,000 doses of freeze-dried smallpox vaccine, with the promise of a further 500,000 doses, to the World Health Organisation. The vaccine is being utilised in the Congo region to control the spread of recent outbreaks of infection.

## SOUTH LONDON AND SURREY GOLF Pharmacists' Golfing Society's annual supper

**EIGHTY-FIVE** golfing enthusiasts dined at the Shirley Park Golf Club recently on the occasion of the South London and Surrey Pharmacists' Golfing Society's seventh annual supper. A highlight of the evening was the presentation by Mr. John Penson (captain of the Shirley Park club) of twenty-eight trophies and prizes played for during the 1960 season. They included a new award—a putter inscribed with the name of Jamie Anderson, winner

of the Open Championship 1877-79. Chairman of the proceedings was Mr. Frank Jamieson (captain of the Golfing Society), and Mr. Marsden Lewis shone as an entertaining announcer. The principal awards were made as follows: Scotia bowl: C. J. Martin; George Watt tankard: G. Howell; Sussex tankard: M. Lewis; Cupal prize: G. Howell; Calcutta cup, G. Roberts; Widocks memorial trophy: B. Stephenson; Bobby Locke trophy:

G. Roberts; Captain's prize: A. Seath; Sussex tankard: S. M. Hutchinson; Verona trophy: G. G. Jamieson; Phil Thorp putter: G. Roberts; Ucal prize: R. Hedges; J. L. Wrathall tankard: M. Bloodworth; Founders' trophy: A. Cottam; Sussex tankard: D. Spier; Visitors' prize: F. Dawes; Croydon shield: M. Doyle; Unichem trophy: D. Spier; Cow & Gate trophy: B. O'Kane; "eighteen-and-over" prize: C. Sackett. Below are the 1960 prizewinners.

## NEW BOOKS

### Clinical Salaries Analysis, 1960

*Institute of Office Management*, 56 Victoria Street, London, S.W.1. 9½ × 6 in. Pp. 126.

IN this ninth issue in the series, the opportunity has been taken to widen in certain respects the scope of the investigation that has been carried out. The book provides for the first time more detailed information about the salaries of women clerks and about minimum age scales. It is based on a sample of 87,000 clerks in 1,112 offices. Of the clerks included in the sample nearly two-thirds were women, of whom more than half were working with machines of one kind or another.

### Aids to Forensic Pharmacy

H. W. FOWLER, B.Pharm., F.P.S. *Baillière, Tindall & Cox*, 7 Henrietta Street, London, W.C.2. 6¼ × 3¼ in. Pp. 299. 12s. 6d.

SOME sections of this book were unfortunately made out of date by the publication of the Poisons Rules, 1960, but the references to other items of legislation are still in line with current law. The book is divided into two parts, the first consisting of brief statements of the law. It suffers by only rarely giving the precise section—or subsection of the actual piece of legislation. The second section gives summaries of the action to be taken in stated circumstances. Specimens of labels are included as well as details of the appropriate records that must be kept.



# Prolonged-action Medicaments

## INTERNATIONAL SYMPOSIUM ON TECHNOLOGICAL ASPECTS

THE general theme of a pharmaceutical technology symposium held in Copenhagen in August under the auspices of the section of industrial pharmacists of the International Pharmaceutical Federation was the technological aspects of the preparation of medicaments with prolonged action for oral administration. Three papers were presented. The first, by Dr. David Jack (Smith Kline & French Laboratories, Ltd.) dealt with the coating of medicaments with substances resistant to the gastric and intestinal juices; the second, by Dr. L. Saunders (School of Pharmacy, University of London), was entitled "Coating with Ion-exchange Resins and Chemical Complexes"; the subject of the third was the incorporation of medicaments in a base to ensure the slow release of the therapeutic substance. Its author was Dr. Jack Cooper (CIBA Pharmaceutical Products, Inc., New Jersey, U.S.A.).

### Purpose

DR. JACK, in his paper, defined the usual objective of sustained-release formulations: to provide a satisfactory therapeutic response for twelve hours with a single-dosage unit so that the patient need take only two doses per day. To determine the rate at which the drug should be supplied, one must establish the single dose required to provide a therapeutic level, and the rate at which the drug was lost by metabolism and/or excretion (the biological half-life of the product at near the therapeutic blood/tissue concentration).

Two main types of sustained-release products depended on coatings for their efficacy: the first, medicated pellets covered with the coating; the second, the drug dispersed in a finely divided state in a matrix of the coating material.

Because their performance depended on pH changes in the alimentary tract, enteric coatings would normally provide a delayed release of medicaments. Coatings or matrices for sustained-release products should not be unduly affected by changes of pH and should be slowly permeable to gastric and intestinal fluids.

### Preparing the "Seeds"

Medicated pellets were usually prepared by coating the drug on to sugar starting "seeds" or other inert pellets by means of adhesive solutions containing, for example, gelatin, sucrose or polyvinyl pyrrolidone, etc. Traditional pan coating methods were suitable. The sustained-release coating could also be applied to the medicated pellets by pan coating methods; it was usually applied as a solution in alcohol or other suitable solvent, the solvent being removed between applications. The rate of release depended on the average coat thickness and the nature of the coating material, and different lots of coated and uncoated pellets might be mixed to obtain practically any desired release

rate. That enabled the release rate of the drug to be adjusted according to its duration of action.

The only liquid sustained-release product known to the author contained the sulphonamide sulphaethylthiadiazole. It was prepared by dispersing finely divided drug in a molten wax and spray-congealing the melt to give drug-containing wax-spheres of about 30-40 $\mu$  diameter. The spray-congealed material was suspended in a palatable vehicle. Prepared as described, the product would give high initial release of drug because of the great surface area. In the author's view the method described was probably restricted to drugs that were sparingly soluble in water and had relatively high  $t\frac{1}{2}$  values. In tablet formulations the drug was dispersed alone or with therapeutically inert materials in a water-resistant matrix (wax or plastic) by means of heat or a solvent. The mass was granulated, mixed with varying amounts of hydrophilic materials and tableting adjuvants, and compressed. Control of release rate was obtained by varying the matrix and the proportion of drug and diluent in the matrix, and by varying the proportion and nature of the material between the granules in the tablet. The main new problem posed to the analyst was *in vitro* determination of drug-release rate.

### Biological Studies Stimulated

DR. COOPER said that the rapid development of sustained-release oral medication had powerfully stimulated research activities in the pharmaceutical industry. A second and equally important effect had been an extension and broadening of biological studies dealing with the absorption, utilisation and excretion of drugs, particularly from a kinetic point of view. In assessing the state of knowledge in that field investigators were hampered by the absence of published technological information. It was obviously difficult to analyse and interpret the various methods used to obtain prolongation of drug activity when the only source of information lay in advertising brochures. The oldest of the techniques used was coating. Only recently had other concepts such as ion-exchange, complexing and controlled diffusion reached the stage of clinical acceptance. The main advantages of those newer types lay in their homogeneity and precision of weight control. Some were independent of chemical composition of the gastrointestinal fluids, and provided increments of the drug by diffusion so long as they were present in the absorption region of the alimentary tract.

It appeared best to divide that group of dosage forms into tablets that disintegrated into discrete particles in the gastrointestinal tract; tablets that gradually eroded but retained their original shape, and tablets that retained their original shape and size but gave up active drug by leaching.

DR. SAUNDERS said that, in order to achieve a reliable sustained-release

effect, simplicity in formulation was important. Elaborate successive coatings such as had been described by a number of workers relied on the presence of particular physiological conditions in the gastrointestinal tract of the patient. Prolonged dosage with such preparations could lead to an accumulation of undissolved coatings. The simplest device for achieving sustained release of ionisable drugs was the use of ion-exchange resins as carriers. The resins were non-toxic and easily excreted; if a strong resin were used the rate of release of drug was mainly dependent on the ionic strengths of the fluids with which it came into contact and was not greatly altered by changes of pH; only one component, the resin, was required in addition to the drug. The resins had the advantage over solid adsorbents that a good deal of sustained-release effect came from the slow diffusion of drug molecules through the resin particle structure, and that could be controlled by varying the particle size of the resin beads and also by altering the degree of cross-linking of the resin. It was, however, probably unrealistic to consider sustained releases over periods longer than 8-12 hours when resin-drug preparations were taken orally.

The idea of using ion-exchange resins to give oral sustained-release preparations had developed as a result of the ideas of a number of workers. First systematic work on the subject seemed to be that of Saunders and Chaudhry (1956). The release rate was found to be dependent upon the total electrolyte concentration of the eluting solution, but the rates with 0.1N sodium chloride and bicarbonate were only slightly less than the rate with 0.1N hydrochloric acid. The degree of cross-linking of the resin had a marked effect on elution rate, as did the particle size of the resin. A useful retardation of the initial rate of release could be achieved by mixing the resin saturated with drug with resin containing no drug. The same effect could also be obtained by only partially saturating the resin with drug, and in fact a good control of the shape of the release curve could be achieved by varying the degree of saturation of resin with drug.

Clinical trials had shown that the combination of several drugs with ion-exchange resins did give a sustained medication, as indicated by the *in vitro* studies. It had also been found that the total amount of drug required to provide a given sustained effect was less when the resin combination was used than when repeated doses of the drug were given. The results with anionic drugs were less clear. With penicillin, complications arose owing to chemical changes in the penicillin molecule when it was absorbed by the resin, leading to a loss of activity.

### Discussion

In comments on Dr. Saunders's paper PROFESSOR J. BUCHI, Switzer-

land, said that it was necessary to use ion-exchange resins of a high purity: many of those commercially available contained impurities. The moisture content also wanted watching.

Answering a question on how to determine whether a substance were suitable for subjecting to the ion-

exchange technique DR. SAUNDERS said that the requirements were that it should be physically stable; insoluble in water and the gastric juices; largely unaffected by changes of pH; of fairly high melting point; and not crystalline.

The coating of individual tablets for test was not practicable, said MR. JACK.

## SYMPOSIUM ON ENZYMES

### Behaviour; standardisation; application in pharmacy; determination

THE Scientific Section of the Federation organised a symposium on enzymes, at which three papers were presented. In the first, H. JØRGENSEN, Denmark, surveyed their general behaviour, functions and activities. In the second E. JACOBSEN and J. Hald, Denmark, dealt with the standardisation of enzymes. K. BULLOCK, Great Britain, followed with a review of their applications in pharmacy; and J. COURTOIS described methods of determining enzymes in clinical chemistry. Determinations were made mainly, said Mons. Courtois, on blood, rarely on urine and the gastric and duodenal juices. The importance of enzymes to cellular activity was evident. Their

effect was often altered under different pathological conditions. Pathological disorders had also been caused when they ceased to act. Many disorders were attributable to the absence of a particular enzyme required for normal metabolism. Principal metabolic disorders included galactosaemia, glycolytic polycoria, phenyl-pyruvic oligophrenia, and pentosuria. Clinical-chemical laboratories were now equipped with apparatus and reagents for determining the effects of a wide variety of enzymes. Purposes of the determinations were: (a) to establish increases of diminutions of the relative quantity of an enzyme normally present, and whose effects varied in differ-

ent pathological disorders; (b) to follow the passage in the blood stream and possibly in the urine of an enzyme normally secreted in other parts of the body; (c) to follow the passage in the blood stream of endocellular enzymes liberated by necrosis in the tissues; or (d) to examine the genetic causes of the non-functioning of an enzyme. The enzymes were determined by their effect on a suitable substrate. The principle of the procedure was simple. In practice it had to be performed with great care, especially as to drawing and preservation of the sample, selection of substrate, observance of conditions of procedure (pH, temperature, duration, and ratio of enzyme to substrate). Nomenclature used to describe the results was at present in confusion. International commissions had suggested standard terms for the effect of enzymes and the use of such standard terms was desirable both for enzymes determined in clinical chemistry and for those included in pharmacopoeias.

The fourth paper in the symposium was on "The Enzymatic Basis of the Effect of Drugs and Poisons." It was by JOSEF RIEHL, Germany.

## FIXED PRICES, MARKETING AND TRAINING

### Problems discussed at Management Conference

A PLEA for a study of the effect on industry of the Restrictive Trade Practices Act, 1956, was made by MR. WILLIAM J. BROWN, M.C. (solicitor to the Supreme Court) in a paper dealing with the Act presented at the National Conference of the British Institute of Management at Harrogate, October 11-13. Mr. Brown held such a study to be of vital importance; economists, he said, "could hardly perform a more useful service," but he stressed that it would require a detailed knowledge of the industry concerned and not merely "the application of economic theory without relevance to the individual facts." He referred to the inquiry conducted by the Board of Trade to ascertain the extent to which resale price maintenance was enforced, and the reasons why some manufacturers availed themselves of their rights under the Act, while others did not do so. He hoped that, from the inquiry, the Government would learn the true reason for resale price maintenance . . . "that cut prices lead to demands for greater margins which must be reflected in higher prices."

#### Price Warfare an Outcome

In the case of a few industries where restrictions had been abandoned, price warfare had broken out. In many instances there had been no substantial fall in prices. There was as yet no evidence that quality had deteriorated nor could that yet be expected. There was, however, an obvious tendency towards the amalgamation of firms so as to form fewer and larger units in any one industry. Such units were able to withstand such competition as might develop. If that tendency increased it might be a matter for anxiety. Mr. Brown considered that, if the effect of the Act had been less than might have been expected, that was probably due firstly to the sustained demand and

prosperity which had existed since the introduction of the Act, and secondly to the disinclination of manufacturers to indulge in price wars. To an increasing extent that had been avoided by the use of what in the United States were called "open" price agreements whereby the parties concerned notified each other of their own prices and proposed changes. Such agreements were as a rule illegal in the United States but were outside the scope of the law in this country as it stood at the moment.

#### Forward Planning for Sales

In another paper—"Marketing and Selling," MR. COLIN MCIVER said that "A businessman who does not arrange to keep up with the inexorable march of events—if possible to keep half a step in front of them—is unlikely to prosper." He urged the development of one section of a company's marketing department to deal with forward planning, with three elements in mind.

"The first should be economic and social forecasting," he said. "Secondly, it should involve a contribution from the technical research section of the production department. Thirdly, the research manager should be called into service to interpret his findings about the current behaviour and needs of the consumer in terms of their future requirements."

It was more profitable in the long run to give the people what they wanted than to attempt to force them to take what was available. "If you don't give them what they want, somebody else will," he said.

Essential elements in the marketing outlook were an analytical approach towards internal organisation and selling methods, aided by the development of machine accounting, and the "recognition that the world changes and even the greatest corporations must

change with it." Mr. McIver suggested that the best approach to export marketing was to think in terms not so much of selling for export as of generating demand in export markets. Marketing and selling were not alternatives. Marketing was a calculated and scientific technique for selling goods and services, but it was no substitute for selling.

#### Training for Management

MR. T. J. ROBERTS (educational and training officer, Beecham Group, Ltd.) presented a paper on "Restlessness and Intellectual Under-employment in Management Trainees." He suggested a revision in the methods of training university recruits. The term "management trainees" should be scrapped. The recruit from a university should be taken on for a specific job. His future career would depend upon how well he did it.

The nature of the training and, partly, the characteristics of the trainee, were usually the cause of restlessness and intellectual under-employment, said Mr. Roberts. Often the training programme lasted anything from three months to two years. "Unfortunately the process is soul-destroying and gives rise to more restlessness and frustration than any other single factor." The graduate saw himself as a responsible person, but responsibility was the "last thing" that happened to a management trainee.

The young man should be recruited for a specific job, put in that job from the word "go," and given the kind of training that was essential to the efficient performance of the job. "He should not be moved until he has demonstrated his competence, and his future development should be catered for by the company's executive development programme like every other promising executive."

CUMULATIVE LIST OF AMENDMENTS TO THE C. & D. Quarterly Price List, September 1

THIS WEEK'S CHANGES ARE GIVEN SEPARATELY AT END

Table listing various pharmaceutical products and their prices. Includes items like 20 Carats (350 Dana) perfume, Actived (208 BW) tablets, Adaptoplast (339CG) dressings, etc.

Table listing various pharmaceutical products and their prices. Includes items like Arrid (1003 PP) roll-on refill, Asmapax (70 Aspro), Atkinsons (76 Atkinson) men's range, etc.

Deletes







# *in the* **COULD** **WAR**

## 'Actifed'

### Tablets

Containing 2.5 mgm. triprolidine hydrochloride ('Actidil') and 60 mgm. pseudoephedrine hydrochloride in each tablet.

Bottles of 25, 60/-  
100, 228/-  
500, 1040/-

Trade prices per dozen

### Syrup

Containing 0.88 mgm. triprolidine hydrochloride ('Actidil') and 21.3 mgm. pseudoephedrine hydrochloride in each fl. drachm of syrup base.

Bottles of 4 fl. oz. 48/-  
20 fl. oz. 200/-

Trade prices per dozen

### Compound Linctus

Containing 1 mgm. triprolidine hydrochloride ('Actidil'), 20 mgm. pseudoephedrine hydrochloride and 7.5 mgm. codeine phosphate in each fl. drachm of syrup base.

Bottles of 4 fl. oz. 48/-  
20 fl. oz. 200/-

Trade prices per dozen

## *against respiratory congestion*

### 'Actifed' Tablets and Syrup

Given ORALLY, 'Actifed' Tablets bring safe, rapid and prolonged relief without risk of secondary engorgement or inhibition of ciliary activity. 'Actifed' Syrup is now also available. A safe, palatable alternative to the tablets, it is especially suitable for children.

'Actifed' Tablets or Syrup is taken 2 or 3 times a day, the dosage being 1 tablet for adults and children over 12 years;  $\frac{1}{2}$  tablet or 1 teaspoonful of syrup for children 2 to 12 years;  $\frac{1}{2}$  to 1 teaspoonful of syrup for infants.

## *against cough*

### 'Actifed' Compound Linctus

A pleasantly flavoured Linctus; combines the properties of 'Actifed' with the cough suppressant action of codeine phosphate; particularly useful if the cough is associated with respiratory congestion, e.g. in the common cold or in bronchial asthma.

'Actifed' Linctus is taken every 4 to 6 hours; 1 to 2 teaspoonfuls for adults,  $\frac{1}{2}$  a teaspoonful for children of 2 to 12 years.

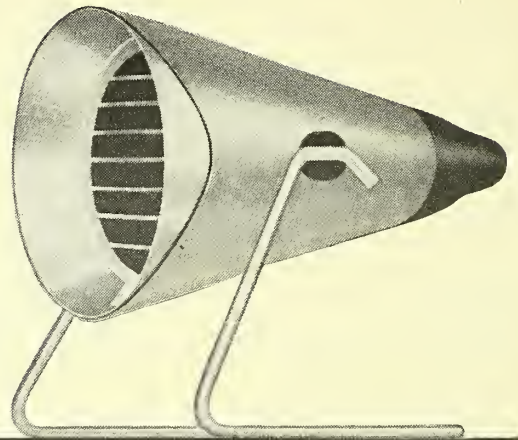
# 'Actifed'

TRADE  
MARK



**BURROUGHS WELLCOME & CO (The Wellcome Foundation Ltd) LONDON**

# This is new



## — and it has a powerful new selling feature

Here's a new Philips 'Infraphil' with an important new feature — Concentrated Beam. In fact, Philips new 'Infraphil' provides infra-red heat in its most effective, most convenient form. It has a new bulb with a prismatic lens front and a special internal reflector that combine to *concentrate* the rays onto the actual pain area, giving faster, more effective relief. The new 'Infraphil' has also been re-designed for easy, comfortable use, no matter what part of the body is being treated.

### Big advertising and sales support

Advertisements in selected magazines and TV participation spots will be widely used this winter to put over the new 'Infraphil'— with special emphasis on Concentrated Beam.

Colourful display material is available to carry the sales message right to the point of purchase. Dealer advertisements, with space for your name and address, are also available. And special mailings will tell doctors all about this superb new lamp. So, when heat treatment is prescribed, you'll be selling Philips new 'Infraphil'!

# This is



# PHILIPS

# NEW

# concentrated beam

# INFRAPHIL

PRICE £4.17.6

*Philips 'Infraphil' is only available to customers who have medical certificates.*

PHILIPS ELECTRICAL LIMITED · CENTURY HOUSE · SHAFTESBURY AVENUE · LONDON · WC2







(315 Crater)=CRATER PRODUCTS, LTD., Lower Guildford Road, Knaphill, Woking, Surrey. Brookwood 2571.  
 (325 CRC)=C. R. CROSSKILL & SONS, LTD., Calvert Works, Norwich. Norwich 27101.  
 (385 DG)=DOROTHY GRAY, LTD., 565 Kingston Road, London, S.W.20. Liberty 3471  
 (461 FL)=FIBRENYLE, LTD., 157 Dukes Road, London, W.3. Acorn 5073.  
 (467 Fleet) = FLEET LABORATORIES, LTD., 675 Mount Pleasant Road, Toronto 7, Ontario, Canada.  
 Delete (605 Hill's)=HILL'S BALSAM, LTD.,  
 (605 Hill's)=HILL'S PHARMACEUTICALS, LTD., Spring Bank Works, Nelson, Lancs. Nelson 65321.  
 (658 Insulex) = INSULEX, LTD., 67 Westbourne Grove, London, W.2 Park 3424.  
 (826 MJ)=MEAD JOHNSON, LTD., 10 Upper Grosvenor Street, London, W.1. Grosvenor 6944.  
 (861 MPC)=MORGANS POMADE CO., LTD., 122 Maidstone Road, Sidcup, Kent. Fooks Cray 7878.  
 996 PR&D)=PLASTIC RESEARCH AND DEVELOPMENT, LTD., 8 Park Road, London, N.W.1. Paddington 2172.  
 (1115 SI)=SCHICK INCORPORATED (UK), LTD., 86a Brook Street London, W.1. Grosvenor 5559.  
 (1158 Sodastream)=SODASTREAM, LTD., 22 Oval Road, London, N.W.1. Gulliver 4421.  
 (1247 TDC) = TRICO DEVELOPMENTS CO., LTD., Great West Road, Brentford, Middlesex. Isleworth 3464.  
 (1248 Trevena)=TREVENA, LTD., 20 Grosvenor Place, London, S.W.1. Sloane 0676.  
 (1274 VDL)=V-DEVELOPMENT, LTD., 22 Clifton Road, London, W.9. Cunningham 0701.  
 (1326 Whisper)=WHISPER COSMETICS, 175 Bow Road, London, E.3. Advance 5546.

## THIS WEEK'S CHANGES

NEW and altered entries notified for the first time.  
 A=Advanced. R=Reduced.

Entries new this week are marked thus:—●

A	Andrews (976 PS&T)								
	liver salt	4 oz	16 0	4 0	2 1				
		8 oz	25 0	6 3	3 3				
	diabetic	8 oz	29 8	7 5	3 11				
	Colgate (280 CP)								
A	shaving stick refill		10 1	2 6	1 4				
A	Delrosa (976 PS&T)								
	rose-hip syrup	6 oz	22 6	..	2 6				
		12 oz	38 3	..	4 3				
●	Hi-lift (1028 Rapidol) bleach		21 0	10 6	3 6				
●	Inecto (1028 Rapidol)								
●	creme hair lightener		20 0	10 0	3 4				
R	Maclean (104 BP)								
	indigestion tablets		7 7	1 9½	1 0				
			13 11	3 5½	1 10				
			26 6	6 7½	3 6				
	Max (855 Mondart)								
●	snow spray	24 8 oz	92 6	22 6½	5 11				
A	Neoran (982 Pierce)								
	liquid	1 gall	40 0ea	10 0ea	70 0				
	tablets	1000	300 0	75 0	43 9				
	Palmolive (280 CP)								
A	shaving stick refill		10 1	2 6	1 4				
A	Paximat S (1017 P/O) projector								
	electric slide with 85 mm f/2.8 lens		503 4ea	..	755 0				
●	V-Cil-K Sulpha (413 Lilly)								
●	paediatric suspension 60 mils		5 10ea	..	8 9½	4BTS			

## BRANCH AND OTHER EVENTS

### MANCHESTER

#### Stereophonics

AN express train roaring through the room; an electronic circuit of the moon; opera in front, to the rear and at the side of the listener! Those were a few of the experiences served up by Mr. A. Wilson (Rare Records, Ltd., Manchester) on September 27 to members of the Manchester Branch of the Guild of Public Pharmacists. Contrasting effects were demonstrated with a good-quality portable gramophone, a popular stereophonic outfit and a deluxe Hi-Fi apparatus that was well beyond the reach of most people.

### PETERBOROUGH

#### Civic Heads in Attendance

THE mayor and mayoress of Peterborough (Councillor and Mrs. J. A. Savage) were among the fifty-eight guests and members who attended the annual dinner of Peterborough and District Chemists' Association, held in Peterborough, on October 11. The president (Mr. A. A. Jones) was in the chair and proposed the toast of "The City" to which the mayor replied, Mr. H. E. Hales proposed "The Association" and the reply was from the president. Mr. S. J. Hopkins (chief

pharmacist, Addenbrooke's Hospital, Cambridge) replied to the toast of "The Visitors" proposed by Mr. C. E. Hughes.

### PLYMOUTH

#### Bacteriology in Pharmacy

STERILISATION, disinfection, bacteriostats and immunology were discussed by Mr. E. ADAMS in an address to the Plymouth Branch of the Pharmaceutical Society on "Bacteriology in Pharmacy" recently. After describing the official methods of sterilisation Mr. Adams referred to the many factors that influenced the action of disinfectants on bacteria, particularly the concentration and type of bactericide used. The evaluation of bactericides was frequently carried out by comparison with a standard such as phenol, under carefully controlled conditions such as temperature and time of action. Many bactericides were too toxic for parenteral use, and could only be used topically. Bacteria developed resistance towards some bactericides. To reduce that tendency in the treatment of tuberculosis, two of the three drugs streptomycin, isoniazid, and sodium para-amino salicylate were given concurrently, and the third kept in reserve should resistance develop. Several substances would inhibit the growth of

bacteria and were used in multidose injections to prevent the growth of organisms accidentally introduced on removal of a dose, including chlorocresol, phenyl mercuric nitrate, and phenol. They also caused the death of a proportion of the bacteria. Mr. Adams described how the minimal bacteriostatic concentration of an antiseptic could be determined by preparing a series of dilutions of the substances in nutrient broth, inoculating with an organism, and incubating. When no opacity was produced, inhibition had occurred. Mr. Adams also referred to problems of immunity.

### LONDON

#### Gordon's Exiles

NEARLY 100 former students of the School of Pharmacy, Aberdeen, members of Gordon's Pharmacy Exiles' Association (for former students now resident in southern England) attended a dinner-dance in London on October 13. Mr. ERIC THORPE (head of the pharmacy department, Portsmouth Technical College) was guest of honour. In a witty speech he proposed the toast to the Association, recalling his years as a lecturer in the School of Pharmacy, Aberdeen. Replying, DR. CHARLES CLARK (chairman) welcomed the guests, and amusingly paraphrased the "birth"

pangs of the Association. The evening's programme included a cabaret and an exhibition of Highland dancing, the event proving enjoyable and a happy augury for the Association's future functions.

**EXILES AT DINNER:**  
 Some of the guests at the recent dinner-dance held in London by Gordon's Pharmacy Exiles' Association.





# TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

LONDON, OCTOBER 26: The shortage of CRUDE DRUGS on the spot continued during the week although the tally men's strike in the London docks was over. Merchants were still awaiting their consignments that had been diverted to some other British as well as Continental ports.

Trading conditions were quiet, meanwhile prices were substantially unaltered on the week. COCHIN GINGER eased 5s. per cwt. for shipment and BRAZILIAN MENTHOL was sixpence per lb. lower both spot and forward. TANGANYIKAN PAPAIN was a little firmer reflecting the unsettled conditions in the Congo, as well as the difficulty in obtaining supplies from Ceylon. Although no business was done, the value of AMERICAN LOBELIA HERB was put at around 8s. per lb.; Dutch new crop material due to arrive shortly was offered at 4s. 9d. In PHARMACEUTICAL GUMS, ACACIA was lower, but TRAGACANTH was sharply advanced.

In ESSENTIAL OILS, CITRONELLA was slightly dearer for shipment although the spot price did not move in sympathy. LEMONGRASS was lower by three-halfpence per lb. for shipment. AMERICAN PEPPERMINT continued to firm but BOURBON GERANIUM was lower by 15s. per lb.

The lower prices for resublimed IODINE noted in the report last week did not last more than a day or so because crude iodine was shortly afterwards increased by 2s. 4d. per kilo. Thus new schedules are now in operation not only for the resublimed iodine but for IODIDES and IODOFORM. POTASSIUM IODIDE for instance is now 19s. 3d. per kilo for 50-kilo lots, against 16s. recently. Powdered CITRIC ACID was increased by 5s. per cwt., the granular, however, is unchanged.

## Pharmaceutical Chemicals

p-AMINOSALICYLIC ACID.—SODIUM, 17s. 6d. per kilo for 1,000-kilo lots.

AMMONIUM ACETATE.—1-cwt. lots of B.P.C. 1949, 4s. 5d. per lb.

AMMONIUM BICARBONATE.—B.P. powder, £50 5s. per ton; CARBONATE, £81 10s. for lump and £85 10s. for powder.

AMMONIUM CHLORIDE.—One-cwt. lots B.P. powder, 105s. per cwt.; technical, 42s. 6d.

ANEURINE HYDROCHLORIDE.—1-kilo, £9 5s.; 10-kilos, £8 17s. 6d. per kilo.

ASCORBIC ACID.—One-kilo, £3 12s.; 10 kilos, £3 10s. per kilo. SODIUM ASCORBATE is offered at the same price.

CALCIFEROL.—B.P., 3s. 3d. per gm. for 1-kilo lots.

CALCIUM CARBONATE.—B.P. light precipitated powder, 1-ton lots, £33 per ton in free bags, ex works.

CALCIUM CHLORIDE.—B.P.C. fused, granulated, 10½d. per lb. in 1-cwt. lots.

CALCIUM GLUCONATE.—Three-cwt. and upwards, 3s. 6d. per lb.; 1-2 cwt., 3s. 7d.

CALCIUM PANTOTHENATE.—£7 10s. per kilo.

CALCIUM SUCCINATE.—10s. 6d. to 12s. per lb., as to quantity. SUCCINIC ACID is from 10s. 6d. to 12s. 3d. per lb.

CHALK.—Prepared powder B.P., £22 per ton for minimum 1-ton ex works.

CITRIC ACID.—Domestic powder (in kegs) per cwt. 1-4-cwt. lots, 225s. per cwt. 5-cwt., 221s. In paper bags, 5-cwt. lots are

213s. Crystals are 5s. per cwt. less than the above.

CYANOCOBALAMIN.—25-gm. lots, £23 per gm., and 1 gm., £24.

ETHER.—Per lb. in winchesters; TECHNICAL B.S.S., and SOLVENT, 5-cwt. 2s. 7d.; (4s. 1d. per litre). In drums the price is 2s. 2d. per lb. ANÆSTHETIC, B.P., 5-cwt., 3s. 10d.; 10-cwt., 3s. 9d.

FOLIC ACID.—B.P. and U.S.P., 1s. per gm. 1-kilo lots; smaller lots, up to 1s. 6d. per gm.

GLYCERIN.—Pharmaceutically pure (s.g. 1.2627):—

Annual purchases or spot lots of	Under 1 cwt.		1 cwt. and under 5-cwt.		5-cwt. and under 1 ton		1 ton and under 5 tons		5 tons and under 25 tons	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Per cwt. DRUMS										
14-lb.	281	0	276	0	272	6	268	0	265	6
28-lb.	279	0	274	6	270	6	266	0	263	6
56-lb.	275	0	270	6	266	6	262	0	259	6
TINS										
1-cwt.	—		254	6	250	6	246	0	244	6
2½-cwt.	—		251	6	248	0	243	6	242	0
5-cwt.	—		—		247	6	243	0	241	6
10-cwt.	—		—		246	6	242	6	241	0

For 25 tons and upwards the price is from 265s. 6d. to 240s. as to containers. Bulk deliveries in tank wagons from 326s. to 237s. 6d. Technical grade glycerin s.g. 1.2627 is 5s. per cwt. less than above.

IODIDES.—(Per kilo) POTASSIUM, 50-kilo lots 19s. 3d.; SODIUM, 24s. 3d. for 25-kilo lots.

IODINE.—Resublimed in less than 50-kilo lots, 25s. 4d. per kilo. Minimum delivered rate for CRUDE is 17s. 4d. per kilo.

LEAD ACETATE.—B.P. crystals, 225s. per cwt.

MENAPHTHONE.—(One-kilo-lots), B.P. 170s. per kilo; ACETOMENAPHTHONE, B.P., 170s.; WATER-SOLUBLE (menadione sodium bisulphite, U.S.P.), 180s.

NICOTINAMIDE.—(Per kilo). One-kilo, 6s.; 10 kilos, 59s.; 50 kilos, 57s.

NICOTINIC ACID.—One-kilo, 39s.; 50-kilos, 36s. per kilo.

NIKETHAMIDE.—Per kilo, 100s.

POTASSIUM ACETATE.—(Per lb.) 1-cwt. lots, 3s.; 5-cwt., 2s. 8d.; 10-cwt., 2s. 6d.

POTASSIUM BICARBONATE.—B.P. powder, 110s. per cwt. 1-4-cwt. lots and 105s. per cwt. for 5-cwt. and over.

POTASSIUM BROMATE.—In 5-cwt. lots, 5s. 3d. per lb.

POTASSIUM CHLORIDE.—In 1-cwt. lots B.P., 1s. 6d. per lb.

POTASSIUM HYDROXIDE.—B.P. sticks are from 6s. 8d. per lb. and pellets, 4s. 6d.; technical flake, 1s. 10d.

POTASSIUM 8-HYDROXYQUINOLINE SULPHATE.—1 kilo is 47s. 1d. and 50 kilos, 44s. per kilo.

POTASSIUM NITRATE.—Pharmacopœial quality, 100s. per cwt. (crystal or powder) in 1-cwt. lots.

POTASSIUM PERMANGANATE.—B.P. in 1-cwt. lots, 1s. 11½d. per lb. Technical 209s. per cwt. and £198 per ton.

POTASSIUM QUADROXALATE.—One-cwt., 3s. 6d. per lb.

POTASSIUM SULPHATE.—B.P. 1949, one-cwt. lots, 1s. 2d. per lb.

POTASSIUM THIOCYANATE.—One-cwt., 5s. 6d. per lb.

PROCAINE HYDROCHLORIDE.—100-kilo lots, 45s. per kilo.

PYRIDOXINE.—One-kilo, £50 10s. per kilo; 10 kilos, £49.

PYROGALLIC ACID.—One-cwt., pure crystals, 24s. 6d. per lb.; resublimed 26s. 6d.

QUININE.—1,000-oz. lots:—ALKALOID, 3s. per oz.; SULPHATE, B.P., 1932, 1s. 11½d.; SULPHATE, B.P., 1958, 2s. 2¼d.; BISULPHATE, 2s.; DIHYDROCHLORIDE, 2s. 9d.; HYDROCHLORIDE, 2s. 6½d.; ETHYL CARBONATE, 4s. 3d.; HYDROBROMIDE, 2s. 5d. Quantities under 100 oz. plus threepence.

RIBOFLAVINE.—One kilo, £13 5s.; 10-kilos, £12 17s. 6d. per kilo.

SODIUM ACETATE.—B.P.C., 28-lb., 2s. 4d. per lb.; 1-cwt., 2s.; 5-cwt., 1s. 11d.

SODIUM BENZOATE.—One-ton lots, 2s. 7½d. per lb.; 1-cwt., 2s. 9½d.

SODIUM BROMATE.—One-cwt., 9s. 9d. per lb.

SODIUM CARBONATE.—B.P.C. exsiccated, 70s. per cwt.; 5-cwt., 65s. per cwt.

SODIUM CHLORIDE.—Recrystallised, 25s. per cwt.; B.P., 42s.

SODIUM METABISULPHITE.—Granular, 1-cwt. lots, 9d. per lb.

SODIUM PERBORATE.—(Per ton) £145 15s. in 1-cwt. kegs; £138 5s. in 1-cwt. bags for B.P.C. (minimum 10 per cent. available oxygen). PERBORATE MONOHYDRATE testing 15 per cent. available oxygen is £309 15s.; TETRAHYDRATE, from £131 15s. to £139 5s. per ton as to packing.

SODIUM PERCARBONATE.—(Per cwt.) 170s. 9d. (bags, 7s. 6d. lower) for minimum 12½ per cent. available oxygen.

SODIUM PHOSPHATE.—B.P.C. powder, 2s. 3d. per lb.

SODIUM SALICYLATE.—One-ton lots in bulk, 3s. 7d. per lb.; 5-cwt. 3s. 8d.; 1-cwt. 3s. 10d.

SODIUM SULPHATE.—B.P. from £12 10s. to £19 17s. 6d. per ton as to crystal and quantity, ex works.

STREPTOMYCIN.—DIHYDRO or BASE, 10½d. per gm.

SULPHUR.—(Per ton in 1-ton lots), B.P. PRECIPITATE, £112 10s.; SUBLIMED, B.P. £47 10s.; POWDER, 100 mesh, £25 10s.

TARTARIC ACID.—10-cwt. lots, 300s. per cwt.; 5-9 cwt., 302s.; 2-4 cwt., 304s.; 1-cwt., 305s.

VITAMIN A.—Synthetic. Supplied in concentrate 1 million international units per gm. as acetate or palmitate the price is 9½d. per million i.u.

VITAMIN D₂.—In oil, 2 million units per gm. the price is 2d. per million international units. Crystalline: see under calciferol.

VITAMIN E (synthetic or natural).—Tocopheryl acetate, B.P.C., 25 gm. to 100 gm., 11d. per gm.; 100 gm. to 1 kilo, 9d. per gm.; 1 kilo and under 10 kilos, £31 5s. per kilo; 10 kilos, £30 10s. per kilo. Equivalent prices for unesterified are: 1s. and 10d. per gm. and £37 and £35 10s. per kilo.

ZINC CARBONATE.—One-cwt. lots, 1s. 11d. per lb.

ZINC CHLORIDE.—B.P.C. cake, 5s. per lb.; sticks, 6s. 10d. TECHNICAL, 115s. per cwt.

ZINC OXIDE.—B.P. in 2-ton lots, £112 10s. per ton.

ZINC PEROXIDE.—One-cwt. lots of B.P., 5s. 3d. per lb.

ZINC SULPHATE.—B.P., 1-cwt. lots, 1s. 10d. per lb.

### Crude Drugs

ACONITE. — Spot: Spanish *napellus*, 2s. 6d. per lb.

AGAR. — Kobé No. 1, 16s. per lb. in bond.

ALOES.—Cape primes, spot, 185s. per cwt.; no offers for shipment. Curaçao, spot, 480s.; shipment, 440s., c.i.f.

BALSAMS.—Per lb.; CANADA: Spot, 22s. for paper-filtered. COPAIBA: Spot, 7s. to 10s., duty paid as to source. PERU: Spot, 9s. in bond. TOLU (genuine as imported): 25s., nominal, B.P., 12s. 6d. per lb.

BELLADONNA. — LEAVES (t.a. 0.53 per cent.), 1s. 9d. per lb. Dutch for shipment (t.a. not quoted) 2s., c.i.f. Root cleared on the spot.

BENZOIN. — Sumatra block, spot £22 to £30 as to quality.

BUCHU. — Scarce. Spot rounds, 1960 crop, 5s. per lb.; 1958-59 crop, 4s. 3d. to 4s. 6d.

CALAMUS.—Root, 1s. 2d. per lb., c.i.f. CALUMBA.—Root, 100s. per cwt., spot, 87s. 6d., c.i.f.

CAMPHOR.—B.P. powder, 3s. 10½d. per lb. in bond.

CAPSICUMS.—Chinese, 155s., duty paid; East African, off-stalk, 175s. to 220s. as to quality.

CARDAMOMS. — Aleppy greens, spot cleared; prompt shipment, 13s. 7½d. per lb., c.i.f. Seeds, shipment, 21s. 6d., c.i.f.

CASCARA.—Spot, 1960 peel, 260s. per cwt., shipment, 265s., c.i.f.

CASSIA. — *Fistula*, 115s. per cwt., spot; *lignea*, 380s., duty paid.

CHILLIES. — Nigerian, 190s. per cwt.; Zanzibar, 360s., Mombasa, 350s. per cwt.

CINNAMON QUILLS.—Shipment (c.i.f., per lb.) 4 O's, 5s. 5d.; 3 O's, 5s. 3½d.; O, 5s. 0½d.; quillings, 3s. 3d.; featherings, 1s. 7d.

CLOVES.—Zanzibar spot, 2s. 9½d. per lb.; shipment, 2s. 6½d., c.i.f.

COCHINEAL.—Black-brilliant, 12s. 3d. per lb., spot; Peruvian silver-grey, 4s. 6d.

COCILLANA. — Bark, 2s. per lb., spot; 1s. 8d., c.i.f.

DIGITALIS. — *Purpurea* for shipment, 11d. to 2s. 4d. per lb., c.i.f., as to test.

ELEMI.—Spot, 2s. 6d. per lb. nominal. Shipment, not offering.

ERGOT.—Portuguese nominally 9s. 9d. per lb., c.i.f., for prompt shipment; spot, 9s. 3d.

FRANGULA.—Spot, 105s. per cwt.

GENTIAN.—Spot: French, 155s. per cwt.

GINGER. — African, spot, 230s. and 215s., c.i.f. Jamaican No. 3, spot, 205s.; shipment, 197s. 6d., c.i.f. Cochin, shipment, new crop, 140s., c.i.f.; spot, 175s. (per cwt.).

GUM ACACIA. — Kordofan cleaned sorts, 162s. 6d. per cwt., spot: November-December shipment, 149s., new crop, December-January, 144s. (both c.i.f.).

HENNA. — Indian, spot, 95s. per cwt.; new crop, November-December shipment, 62s. 6d., c.i.f.

HONEY.—Australian light amber, 97s. 6d. to 100s. per cwt. and medium amber 92s. 6d. to 97s. 6d.; Argentine, 100s.; Jamaican, 110s. to 115s.; Canadian clover, 145s. to 150s., all ex warehouse.

IPECACUANHA. — For shipment, c.i.f., per lb.—Colombian, 50s. 3d.; Costa Rican, 68s. 6d.; Nicaraguan, 66s. 6d. Spot: Matto Grosso, 53s. 6d. to 55s. as to test; Colombian, 55s. 6d.

JUNIPER BERRIES.—Italian, 90s. per cwt.; German, 145s.

KARAYA. — No. 1 gum, spot 325s. per cwt. nominal; No. 2, 225s.

KOLA NUTS. — Jamaican for shipment, 7d. per lb., c.i.f. African, 5½d. spot and 4d., c.i.f.

LANOLIN. — ANHYDROUS, B.P., is from 170s. to 175s. per cwt. in 1-ton lots and HYDROUS, B.P., 150s., free drums, delivered.

LEMON PEEL.—Spot, 2s. 6d. per lb.

LINSEED.—Whole, 75s. to 80s. per cwt.; crushed, 110s.

LOBELIA HERB.—Dutch to land shortly, 4s. 9d. per lb. American, c.i.f., value 8s.

MACE. — Whole pale blade, 23s. 6d. per lb. spot.

MENTHOL. — Chinese: market nominal. Brazilian, 57s. 6d., in bond; 57s. 6d., c.i.f.; Formosan, 57s. 6d., duty paid (55s. in bond).

MERCURY. — About £70 10s. per flask of 76 lb.

NUX VOMICA.—Shipment, 90s. per cwt., c.i.f., subject to export licence.

ORANGE PEEL. — Spot: Sweet ribbon, 2s. per lb.; bitter quarters: West Indian, 11d.; Spanish, 1s. 7d.; bitter ribbon, 1s. 6d.

ORRIS ROOT.—Florentine, 350s. per cwt.

PAPAIN. — Tanganyikan, 12s. per lb., c.i.f., for grade one. Spot, 12s. 6d. to 13s. Ceylon all grades nominal.

PEPPER.—White Sarawak, spot, 5s. 2d. to 5s. 3d. per lb.; shipment, 4s. 8½d., c.i.f. Black Sarawak, spot, 3s. 10½d.; shipment, 3s. 1½d., c.i.f. Black Malabar, 460s. per cwt. spot, and 425s., c.i.f.

PEPPERMINT LEAVES. — Dutch whole, 1s. 9d. to 2s. 2d. per lb., c.i.f.

PIMENTO.—Spot, 590s. cwt.; shipment, 540s., f.o.b.

PODOPHYLLUM. — Emodi, 190s. per cwt. spot.

QUILLAIA. — Spot nominal; near shipment, 175s., per cwt., c.i.f.

SAFFRON.—Mancha selecta, 147s. 6d. per lb.

SARSAPARILLA. — Jamaican native red short on spot, 2s. 8d. per lb.; shipment, 2s. 3d., c.i.f., nominal.

SEEDS. — (Per cwt.). ANISE.—Spanish, 155s., duty paid. CARAWAY. — Dutch, 172s. 6d., duty paid. CELERY. — Indian, 145s. spot; shipment, 137s. 6d., c.i.f. CORIANDER.—Moroccan firm at 100s., duty paid; shipment, 80s., c.i.f. CUMIN. — Indian, 185s. spot and Iranian, 180s., duty paid. DILL. — Indian, 100s., spot; shipment, 87s. 6d., c.i.f. FENNEL.—Chinese is 105s., duty paid and Indian, 120s. FENUGREEK.—Moroccan sold at 57s. 6d., duty paid with sellers now asking 60s.; shipment, 49s. 6d., c.i.f. MUSTARD.—English, 67s. 6d. to 97s. 6d. according to quality.

SENEGA.—Spot, 21s. 6d. per lb.

SENNA. — *Tinnevely* LEAVES, prime No. 1, 1s. 5d. per lb., nominal, f.a.q.; No. 3, 9d. Pods: Manufacturing (f.a.q.), 9d. and hand-picked, 1s. 6d. to 1s. 10d. *Alexandria* pods: Manufacturing, 1s. 6d.; new crop hand-picked, 4s. 6d. to 7s.

SQUILL.—White 80s. per cwt., spot.

TONQUIN BEANS.—Para spot, 7s. 3d. per lb. Shipment, 7s., c.i.f. Angostura 11s.

TRAGACANTH. — No. 1 ribbon, £145 to £150 per cwt. No. 2, £135 to £140.

VALERIAN ROOT. — Spot: Indian (with rootlets), 130s. Belgian, whole (max. 2½ per cent. sand) for prompt shipment, 145s., c.i.f. Dutch old crop cleared; new-crop prices awaited.

VANILLIN.—Rates (per lb.) are now:—5-cwt. lots, 23s. 3d.; 1-cwt., 23s. 6d.; 56-lb., 23s. 9d.; smaller quantities, 24s.

WAXES. — (Per cwt.). BEES.—Dar-es-Salaam, spot, 485s.; shipment, 460s., c.i.f. Abyssinian, spot 410s. in bond; shipment 370s., c.i.f. Benguela, shipment, 380s., c.i.f. Sudanese, spot, 425s.; shipment, 380s., c.i.f. CANDELLILLA, spot, 460s. CARNAUBA, fatty grey, spot, 540s.; shipment, 520s., c.i.f.; prime yellow, spot, 750s.; shipment, 725s., c.i.f.

WITCH HAZEL LEAVES.—New-crop nominally, 2s. 8d. per lb.

### Essential and Expressed Oils

BAY.—West Indian, 12s. per lb. on the spot.

BERGAMOT.—Spot, from 72s. 6d. per lb.

CADE. — Spanish, 3s. 6d. per lb. for drum lots.

CALAMUS.—Spot, 62s. 6d. per lb.

CANANGA.—Spot, from 42s. 6d. per lb.

CARAWAY. — Imported oil, 27s. 6d. to 37s. 6d. per lb.

CARDAMOM. — From 330s. per lb. for English-distilled and 260s. for imported.

CEDARWOOD.—American rectified, 5s. 6d. per lb. on the spot.

CINNAMON. — From quillings, best English-distilled is 50s. per oz.; other B.P. oils from 165s. per lb. Ceylon leaf, spot, 10s. 6d. per lb.; Seychelles, 8s. 6d., spot.

CITRONELLA. — Ceylon, spot, 6s. 7d.; shipment, 6s. 3d. per lb., c.i.f. Formosan, spot, 6s. 4½d., in bond; shipment, 6s. 3d., c.i.f.

CLOVE.—Madagascar leaf, spot, 8s. per lb., duty paid; shipment, 7s., c.i.f. Rectified 87-88 per cent., 12s. Distilled bud-oil, English, B.P., 30s. to 31s.

CUMIN.—Imported oil, 90s. per lb.

EUCALYPTUS.—Australian 70 and 75 per cent. eucalyptol on the spot is 5s. 3d. per lb. 80-85 per cent., 5s. 6d. Spanish (70-75). 3s. 6d. spot. Chinese 3s. 3d., duty paid.

FENNEL. — Spanish sweet, spot, 10s. per lb.

GERANIUM. — Bourbon, 175s. to 185s. per lb. on the spot; Algerian, 140s.

GINGER.—Imported: Jamaican, 130s. per lb.; Chinese, 72s. 6d., duty paid.

JUNIPER. — B.P.C. 1949 oil is from 15s. per lb. on the spot. English-distilled, 180s. JUNIPER WOOD, from 5s.

LEMON.—Californian cold-pressed from 12s. 6d. per lb., spot. Terpeneless, 500s. per lb.

PENNYROYAL. — Spot, 12s. 6d. per lb. duty paid.

PEPPERMINT. — *Arvensis*: Chinese spot cleared, Brazilian, 16s. 9d. per lb. spot and shipment, 16s. 6d., c.i.f. *Piperita*: Italian "Mitcham-type" nominally 55s. per lb., c.i.f., for new crop. Bulgarian, B.P., 32s. 6d. American, 35s. per lb.

PETITGRAIN.—Paraguay, 18s. 6d. per lb., spot; shipment, 17s. 9d., c.i.f.

PIMENTO. — English-distilled berry 167s. 6d. per lb.; imported, 77s. 6d. Rectified leaf, 27s. 6d. per lb. for small lots.

PINE. — *Pumilionis* on the spot is 16s. per lb.; *sylvestris*, 25s.; Siberian (*abietis*), 12s. 6d. to 14s.

ROSEMARY.—Spanish is 7s. 6d. per lb. on the spot for best quality.

RUE.—Spanish is 25s. per lb. spot.

SAGE.—Spanish, 8s. per lb.; Dalmatian, 25s.

SANDALWOOD.—Mysore 150s. to 155s. per lb. Australian, 70s.

SASSAFERAS.—Brazilian is from 3s. 6d. per lb., duty paid.

SPEARMINT.—American oil on the spot about 50s.

TANGERINE.—From 22s. to 31s. per lb., as to quality, spot.

YLANG YLANG.—Spot, 37s. 6d. per lb.

### UNITED STATES REPORT

NEW YORK, OCTOBER 25: Crude IODINE from Chile was advanced by 15 cents to \$1.10 per lb. Synthetic CAMPHOR reduced to make U.S.P. powder 57 cents per lb. (down 2 cents) and tablets, 80 cents (5 cents). Higher per lb. were ALETRIS ROOT at \$1.75 (up 10 cents), LOBELIA HERB, \$1 (20 cents) and SANDALWOOD OIL, up 50 cents to \$23 per lb.

### TELEVISION

Figures in the columns represent number of appearances of the product during the week.

November 6-12	Region								
	London	Midland	North	Scotland	Wales	South	N.E.	Anglia	Ulster
Alka-Seltzer ..	1	6	1	2	2	2	2	2	2
Anadin ..	2	—	1	—	—	2	5	1	4
André Philippe hair lacquer ..	—	—	—	—	—	—	1	—	—
Angettes ..	3	2	3	—	—	—	1	—	—
Aspro ..	4	—	2	3	6	4	4	—	—
Beecham's pills ..	1	2	—	—	—	1	—	—	1
powders ..	4	4	4	4	4	4	4	5	5
Bisodol ..	—	—	—	6	—	—	—	—	—
Bronchipax ..	5	3	2	4	5	3	5	2	—
California Syrup of figs ..	—	—	2	—	—	—	—	—	—
Christy's emulsion ..	—	—	—	—	—	—	—	1	—
Coldrex ..	4	5	5	3	3	3	3	4	4
Colliclean ..	—	—	2	—	—	—	—	—	—
Cooper's aerosols ..	6	10	7	8	6	4	7	9	6
Crookes Dekrasil capsules ..	—	—	3	—	—	—	2	—	—
Cuticura ..	2	—	—	—	—	—	—	—	—
Deep Heat ..	3	3	—	3	4	3	4	4	1
Delsey ..	—	—	—	3	—	—	—	2	—
Dristan tablets ..	—	—	1	—	—	—	—	—	—
Elliman's embrocation ..	1	—	1	1	—	—	1	—	—
Eno's fruit salt ..	—	2	—	—	2	—	—	—	—
Euthymol tooth-paste ..	1	—	1	—	1	1	1	—	—
Farley's infant foods ..	2	1	—	—	—	—	—	—	—
Germolene ..	1	4	1	—	—	—	1	—	—
Gon tablets ..	—	—	—	1	—	—	—	—	—
Guavin ..	—	—	—	—	1	—	—	—	—
His Excellency ..	1	—	—	—	—	—	—	—	—
Horlicks ..	3	4	3	2	3	3	3	2	2
Imperial Leather soap ..	2	6	4	3	3	3	3	3	2
Johnson's baby products ..	3	2	4	3	2	3	2	2	3
Kleenex ..	3	4	4	2	5	3	3	5	2
Kruschen salts ..	—	3	—	—	—	—	—	—	—
Lantigen products ..	—	1	—	—	—	—	—	—	—
Loxene hair cream..	2	—	1	—	2	1	2	—	—
shampoo ..	1	1	1	1	1	1	1	1	1
Mac throat sweets..	4	3	2	—	—	—	—	—	—
Macleans tooth-paste ..	3	2	3	3	3	3	2	3	3
Milk of Magnesia tablets ..	2	—	2	2	2	2	2	—	—
..	—	3	3	—	—	—	—	3	—
Monastery herbs ..	—	2	—	—	—	—	—	—	—
Owbridge's products ..	2	—	1	—	2	2	3	2	2
Panets ..	4	—	—	—	—	—	—	—	6
Penetrol inhalant ..	1	—	—	—	—	—	1	—	—
Pepsodent tooth-paste ..	1	2	2	2	2	2	2	2	2
Philips electric blankets ..	1	1	1	—	—	—	1	1	—
Philishave ..	5	5	5	5	5	4	4	5	5
Philips tooth-paste ..	1	—	—	—	—	—	—	—	—
Phosferine ..	2	2	2	—	—	—	—	—	—
Phyllosan ..	—	1	1	—	2	—	2	—	2
Pifco massager ..	1	1	1	1	1	1	1	1	1
Rennies ..	1	2	2	3	3	2	2	3	3
Rinstead pastilles ..	1	—	—	1	1	1	1	1	1
Sure Shield lozenges ..	—	5	—	—	—	—	—	—	—
I.C.P. ..	—	1	1	—	—	—	—	—	—
Tru-Gel ..	3	3	1	3	1	3	2	2	2
Vaseline petroleum jelly ..	5	4	4	5	5	5	5	5	5
Veno's cough mixture ..	2	1	2	2	2	—	2	—	2
Wincarnis ..	—	2	—	—	—	—	—	—	—
Winspray products ..	—	—	—	1	—	—	—	—	—

### WILLS

MR. A. H. ROBERTSON, M.P.S., 25 Barton Road, Lancaster, left £3,595 (£3,460 net).  
 MR. J. J. CAMPBELL, M.P.S., Greenbank, Gathurst Road, Gathurst, Wigan, Lancs, left £48,529 (£38,128 net).  
 MR. W. T. ELDER, M.P.S., 22 Fountainhall Road, Aberdeen, left personal estate in England, Scotland and abroad valued at £10,847.  
 MR. L. HEPTINSTALL, M.P.S., Windrush, Black Moor Lane, Bardsey, Yorks, left £11,540 (£11,479 net).

## C. & D. RETAIL AND DISPENSING PRICE LIST

The drug index for September was 209.6

Cost		Item	16 oz.	4 oz.	1 oz.	1 dr.
d.	per		s. d.	s. d.	s. d.	s. d.
26	500 gm.	Ammon. chlorid. pur. ...	—	0 10	0 3	0 1
63	250 gm.	Collod. acetone, B.P.C. ...	—	3 3	1 0	0 1½
96	500 gm.	Collod. acid. salicyl., B.P.C. ...	—	2 6	0 9	0 1½
69	500 gm.	Collod. flex. meth. ...	—	1 9	0 6½	0 1
90	500 mls	Emuls. menth. pip., B.P. '53 ...	—	2 11	0 10½	0 1½
68	100 mls	Ext. ergotæ liq., B.P.C. S.I. (5) ...	—	—	2 10	0 5
212	2 litres	Ext. glycyrrhizæ liq. ...	—	1 8	0 6	0 1
30	500 mls	Fehling's solution No. 1 ...	3 5	0 11½	0 3½	—
90	500 mls	Inf. sennæ conc., B.P.C. ...	—	2 11	0 10½	0 1½
42	500 mls	Liq. aluminii acetatis ...	—	1 4	0 5	—
237	1 gal.	Ol. arachis ...	3 0	0 11	0 1½	—
52	25 gm.	Phenobarbitonum S.I.R only	—	—	—	1 1
66	25 gm.	Podophylli resina ...	—	—	—	1 4
234	500 gm.	Rheum pulv. ...	—	—	2 3	0 4
87	100 gm.	Thymol ...	—	—	3 8	0 6
87	500 mls	Tr. scillæ, B.P.C. ...	—	2 10	0 10	0 1½
39	500 gm.	Ung. emulsificans aqous. ...	—	1 3	0 4½	—
132	500 gm.	Ung. resorcinol. co., B.P.C. ...	—	4 3	1 3	0 2
Cost		Tablets, retail (in containers)	25		100	
d.	per		s. d.	s. d.	s. d.	
32	100	Folic acid 5-mgm., B.P.C. ...	—	—	1 9	4 8
510	1000	Phenobarb. et theobrom., B.P.C. ...	—	S.I.R only	2 6	8 4
96	1000	Sodii citrat. gr. 2... ...	—	—	0 9½	2 0

The bold letters and figures at left of dispensing price relate to the classification of poisons in THE CHEMIST AND DRUGGIST Poisons Guide.

### COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Tuesday of the week of insertion.

#### Sunday, October 30

CORNWALL BRANCH, NATIONAL PHARMACEUTICAL UNION, Tregenna Castle hotel, St. Ives, at 2.30 p.m. Mr. A. Howells (N.P.U. vice-chairman) on "Hazards of the Present and the Future."

HARROW BRANCH, PHARMACEUTICAL SOCIETY, Rest hotel, Kenton, at 6.30 p.m. Annual dinner and dance.

NORWICH BRANCH, PHARMACEUTICAL SOCIETY, assembly house, Theatre Street, at 7.30 p.m. Mr. R. Pettitt (Green & Wright, Ltd.) on "Table Wines."

WOKING BRANCH, PHARMACEUTICAL SOCIETY, Albion hotel, at 7 p.m. Annual dinner-dance.

#### Monday, October 31

OLDHAM BRANCH, PHARMACEUTICAL SOCIETY, Greaves Arms hotel, at 7.30 p.m. Annual meeting.

WEST HERTFORDSHIRE BRANCH, PHARMACEUTICAL SOCIETY, Crown hotel, Berkhamsted, at 7.30 p.m. Hallowe'en party.

#### Thursday, November 3

CHESTER BRANCH, PHARMACEUTICAL SOCIETY, Blossoms hotel, at 8 p.m. Mr. A. Metcalfe, A.R.P.S., on "Table Topics."

EDINBURGH AND SOUTH-EASTERN SCOTTISH BRANCH, PHARMACEUTICAL SOCIETY, 36 York Place, Edinburgh, at 7.45 p.m. Film show by Max Factor Hollywood and London (Sales), Ltd.

LONDON SECTION, ROYAL INSTITUTE OF CHEMISTRY, Brunel College of Technology, Woodlands Road, London, W.3, at 7 p.m. Dr. C. C. Addison on "Non-aqueous Solvent Systems."  
 THAMES VALLEY PHARMACEUTISTS' ASSOCIATION, Kingston hotel, Kingston-on-Thames, at 7.45 p.m. Mr. W. G. Morris on "Colour Photography."

#### Friday, November 4

MERSEYSIDE BRANCH, NATIONAL ASSOCIATION OF WOMEN PHARMACEUTISTS, 9 Bluecoat Chambers, School Lane, Liverpool, 1, at 7.45 p.m. Mr. A. D. M. Johnstone (Liverpool public health department) on "The Protection of Your Food Supply."  
 SOCIETY OF CHEMICAL INDUSTRY, Royal College of Science and Technology, George Street, Glasgow, at 6 p.m. Tennant memorial lecture: Professor A. R. Ubbelohde (professor of thermodynamics, Imperial College of Science and Technology, London) on "Melting and Freezing."

#### Wednesday, November 2

CAMBRIDGE AND HUNTINGDON BRANCH, PHARMACEUTICAL SOCIETY, Matthew's café, 14 Trinity Street, Cambridge, at 8 p.m. Mr. K. Holland (Macarthis (Wholesale Chemists), Ltd.) on "Pharmacy as seen by a Wholesale Chemist."

#### Saturday, November 5

LONDON SECTION, ROYAL INSTITUTE OF CHEMISTRY, Bush House restaurant, Aldwych, London, W.C.2, at 6.15 p.m. Annual dinner and dance.

## TRADE MARKS

### APPLICATIONS ADVERTISED BEFORE REGISTRATION

From the "Trade Marks Journal," October 19

For prepolymers, being chemical products, for the production of urethane resins (1)

SOLITHANE, 801,825, by Thiokol Chemical Corporation, Bristol, Pennsylvania, U.S.A.

For all goods (1)

HOSTAPHAT, 806,860, by Farbwerke Hoechst, A.G., vormals Meister Lucius & Brüning, Frankfurt-on-Main-Hoechst, Germany.

For scouring powder (3)

JET, B793,766, by Thomas Hedley & Co., Ltd., Newcastle-on-Tyne.

For liquid dry-cleaning preparations for domestic use (3)

SCRUBB'S, 794,973, by Scrubb & Co., Ltd., Wimbledon, London, S.W.19.

For hair lotions for use in waving the hair (3)

JETCOLWAVE, B795,988, by Costas Chris, Bexleyheath, Kent.

For perfumed soap, perfumes and non-medicated toilet preparations, cosmetics, hair lotions and dentifrices (3)

Device, 799,686, by Bourjois, Ltd., Croydon, Surrey.

For non-medicated toilet preparations for use on eyelashes (3)

LASH-O-MATIC, 801,003, by Miners Make Up, Ltd., Surbiton, Surrey.

For tooth-paste (3)

SMILE, 804,837, by Thomas Hedley & Co., Ltd., Newcastle-on-Tyne.

For all goods (3)

CLEERTEEN, 805,070, by Tokalon, Ltd., Chertsey, Surrey. COOKIES 'N' MILK, 805,333, by Helene Pessl, Inc., New York 22, U.S.A.

For soaps, perfumes, non-medicated toilet preparations and cosmetic preparations (3)

MINER'S SHEER BLISS, 805,483, by Miners Make Up, Ltd., Surbiton, Surrey.

For washing preparations (3)

NYLUSTRE, 806,140, by Mayborn Products, Ltd., Sydenham, London, S.E.26.

For detergents (not for use in industrial or manufacturing processes) (3)

RADAR, 806,180, by Thomas Hedley & Co., Ltd., Newcastle-on-Tyne.

For perfumes, toilet preparations (not medicated) cosmetic preparations, dentifrices, depilatory preparations, toilet articles, sachets for use in waving the hair, soaps and essential oils (3)

CAPTAIN, 808,303, by W. B. Cartwright, Ltd., Rawdon, Yorks.

For preparations of vitamins and of minerals for use as nutritional aids by addition to foodstuffs (5)

COMBIVITA, 794,287, by Multiforsa, S.A., Zug, Switzerland.

For antihistaminic, anticholinergic and antipruritic preparations, and serotonin antagonists, all for use in medicine and pharmacy (5)

PERIACTIN, 794,667, by Merck & Co., Inc., Rahway, New Jersey, U.S.A.

For all goods (5)

SCLENAX, 798,113, by Roche Products, Ltd., Welwyn Garden City, Herts. CLEERTEEN, 805,071, by Tokalon, Ltd., Chertsey, Surrey. SPRING STEP, 806,048, by D.D.D. Co., Ltd., Watford, Herts.

For pharmaceutical preparations for use against infections and parasitic infestations, for human use (5)

TAPARIL, 798,115, by Roche Products, Ltd., Welwyn Garden City, Herts.

For pharmaceutical preparations for human and veterinary use (5)

FLOXOID, 798,878, by Merck & Co., Inc., Rahway, New Jersey, U.S.A.

For pharmaceutical preparations used for the treatment of superficial infections, burns and similar skin irritations (5)

Device of the word VOSOL, 799,465, by Denver Chemical Manufacturing Co., Stamford, Connecticut, U.S.A.

For pharmaceutical preparations and substances; and sanitary substances and disinfectants; all for veterinary use (5)

EPIVET, 800,380, by Imperial Chemical Industries, Ltd., London, S.W.1.

For pharmaceutical preparations for the treatment of respiratory disorders (5)

RESPIRAN, 800,887, by Anestan, Ltd., London, W.1.

For drugs for use in operations for the removal of cataract of the eye (5)

ZONUTYSIN, 802,831, by S. Maw, Son & Sons, Ltd., Barnet, Herts.

For pharmaceutical preparations for the treatment of coughs, colds and the like ailments (5)

TRIOTUSSIC, 803,007, by A. Wander, Ltd., London, W.1.

For pharmaceutical products and preparations all being or containing amines (5)

NOBAMIN, 803,710, by A.G. Bofors, Bofors, Sweden.

For pharmaceutical preparations (5)

RIFOCIN, 804,513, by Lepetit, S.p.A., Milan, Italy.

For pharmaceutical preparations in the form of chewing gum for use in the treatment of heart ailments (5)

ANIIGUM, B804,632, by Horlicks, Ltd., Slough, Bucks.

For deodorants (5)

FRESHMAN, 805,354, by Myram Picker, Ltd., Surbiton, Surrey.

For pharmaceutical, veterinary and sanitary substances; insecticides, bactericides, virucides and fungicides; and preparations for killing weeds and destroying vermin (5)

Device with number 1044, 805,544, by Walter Gregory & Co., Ltd., Wellington, Somerset.

For weed-killing preparations (5)

DAQUAPON, 807,545, by Borax Consolidated, Ltd., London, S.W.1.

For razor blades (8)

REVEILLE, 802,620, by Falcon Distributors, Ltd., London, W.1.

For photographic apparatus and instruments, parts and fittings, but not including camera stands or camera rests (9)

CAMERAPOST, B795,889, by Ascotts, Ltd., London, W.1.

For apparatus for controlling or assisting respiration, and parts and fittings (9)

MINUTEMAN, 796,857, by British Oxygen Gases, Ltd., London, S.W.1.

For apparatus and instruments, parts and fittings, and lenses, all for use in colour photography and colour cinematography (9)

AGFA COLOR-AUTOMAR, 803,869, by Agfa, A.G., Leverkusen-Bayerwerk, Germany.

For thermometers (9)

TEMPOIN<sup>1</sup>, 805,462, by Bacharach Industrial Instrument Co., Pittsburgh, Pennsylvania, U.S.A.

For photographic, cinematographic and optical apparatus, and parts and fittings (9)

CAVALCADE, 806,863, by Kodak, Ltd., London, W.C.2.

For glass feeding-bottles (10)

PYREX, 795,306, by James A. Jobling & Co., Ltd., Sunderland.

## PATENTS

### COMPLETE SPECIFICATIONS ACCEPTED

From the "Official Journal (Patents),"

October 19

Lipo-polysaccharides of bacterial origin and process for preparing same. CIBA, Ltd, 856,413.

Anti-allergic and anti-viral substances prepared from bacterial cultures. CIBA, Ltd, 856,414.

Substituted anilides. A. E. W. Smith, 856,385.

Aniline derivatives. Merck & Co., Inc, 856,443.

Animal feed derivatives. C. Pfizer & Co., Inc, 856,290.

Process for the production of a solid concentrate of laxative substances of senna drugs. R. Lappe, W. Lappe, H. Eikermann, and R. Grieshaber-Lappe (trading as A. Nattermann & Cie), 856,351.

2-aryl-hexahydroquinolizines. W. S. Merrell & Co, 856,357.

Preparation for bleaching the skin. W. Fellows, 856,431.

Polysulphonamides. Imperial Chemical Industries, Ltd, 856,310.

Flame spectrophotometry. National Research Development Corporation, 856,442.

Derivatives of isocyanuric acid. Imperial Chemical Industries, Ltd, 856,372.

Antioxidant composition and its use. Ethyl Corporation, 856,458.

Carbamic acid derivatives. Cassella Farbwerke Mainkur, A.G. 856,460.

Diamino derivatives of dimeric aromatic hydrocarbons. National Distillers & Chemical Corporation, 856,313.

Isolation of Rauwolfia alkaloid and salts thereof. Penick & Co., S.B. 856,316.

4, 4'-bis (benzimidazol-2-yl)-stilbene. Sterling Drug Inc, 856,319.

Manufacture of pentaerythritol. Union Chimique Belge, S.A. 856,322.

Heterocyclic compounds and methods for producing same. Parke, Davis & Co, 856,352.

Process for the manufacture of 4-amino-isoxazolidone-(3). F. Hoffmann-La-Roche & Co., A.G. 856,393.

Process for the preparation of cyclopropanecarboxylic acids of trans-form. Soc. des Usines Chimiques Rhone-Poulenc, 856,400.

Vitamin A intermediates and process for obtaining them. Nopco Chemical Co, 856,402.

Pyridazine derivative and its process of preparation. Chimie Et Atomistique, 856,409.

Method for the preparation of alkoxyalkyl esters of p-methoxycinnamic acid. L. Givaudan & Cie, S.A. 856,411.

4-methyl-17  $\alpha$ -hydroxyprogesterone and its esters and their preparation. Soc. Farmaceutici Italia, 856,361.

Insecticides comprising halogenated-endomethylene-tetrahydrophthalans. Ruhrchemie, A.G. 855,955.

Halogenated tetra-hydro-thophene-1, 1-dioxides. Diamond Alkali Co, 856,446.

Apparatus for delivering liquids at a constant mean rate. National Research Development Corporation, 856,302.

Filtration processes. Imperial Chemical Industries, Ltd, 856,247.

Apparatus for filling bags with powdered materials. Wright Hargreaves Engineering Co., Ltd., and G. Hargreaves, 856,457.

Flexible tubing clamp for venoclysis apparatus. Abbott Laboratories, 856,266.

Frame filter press. J. R. Geigy, A.G. 856,241.

British patent specifications are obtainable (price 3s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2.

## CONTEMPORARY THEMES

Subjects of contributions in current medical and technical periodicals.

A NEW DRUG is born. *J. Amer. Med. Ass.*, September 24.

SYSTEMIC INSECTICIDES in the control of cattle grubs. *Vet. Rec.*, October 22.

CHLORINE use, in the detection of compounds on paper chromatograms. *Nature*, October 22.

2-HYDROXYGESTROGENS. *Nature*, October 22.

ELASTASE, a plate assay for. *Nature*, October 22.

OXIDOSOMES in bacterial anatomy. *Nature*, October 22.

PHENYTOIN in the treatment of trigeminal and other neuralgias. *Lancet*, October 22.

CHEMICAL SPLENECTOMY. *Lancet*, October 22.

PARASITIC DISEASE OF THE SKIN. *Med Press*, October 19.

THE MENOPAUSE, management of: a new approach. *Med. Press*, October 19.

LAVANDULA, histological studies of the genus. Part I. *Lavandula multifida* L., *Amer. J. Pharm.*, July.

PERTUSSIS: is universal vaccination against it always justified? *Brit. med. J.*, October 22.

HEPARIN, neutralisation of, after perfusion. *Brit. med. J.*, October 22.

MIGRAINE, drug prophylaxis in. *Brit. med. J.*, October 22.

ETHIONAMIDE. *Brit. med. J.*, October 22.

MUSCARINE ISOMERS, atropine-like actions of. *Science*, October 7.

RADIATION SENSITIVITY of dry bacterial spores, reduction of, with hydrogen sulphide. *Science*, October 7.

TABLET SHELF LIFE PREDICTION, heating and cooling rate coefficients and related factors affecting procedures for. *J. Amer. Pharm. Ass.*, October.

EUCALYPTOL, determination of by residual titration with hydrogen bromide in acetic acid. *J. Amer. Pharm. Ass.*, October.

TOXICITY AND SAFETY TESTING of disposable medical and pharmaceutical materials. *J. Amer. Pharm. Ass.*, October.



## 6'6 PROFIT ON EVERY BOTTLE!

- Every greying or grey-haired man or woman coming into your shop is a potential customer for FORMULA 16.
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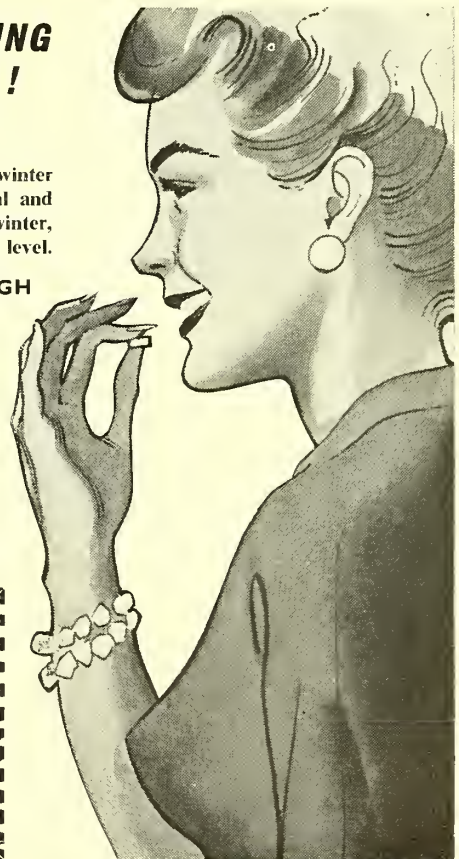
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GON sales again increased last winter and with even bigger TV, National and Women's Press advertising this winter, sales will reach a new and higher level.

GON IS SOLD ONLY THROUGH  
RETAIL PHARMACISTS

GON is a chilblain treatment and preventative in tablet form—each tablet containing 10 mgm acetomenaphthone and 50 mgm nicotinamide. The tablets are packed in display outers of 12 boxes of 24 tablets and retail at 3/- a box. No Purchase Tax.

ORDER NOW — POST TODAY



#### SPECIAL DISPLAY BONUS OFFER

Orders for one outer of 12 boxes of 24 tablets—only 11 boxes will be charged, in return for four weeks counter display during January 1961. Orders for two or more outers—only 10 boxes will be charged for each dozen in return for one outer being displayed on the counter and one in the window during the four weeks of January 1961.

Please send me on Display Bonus Terms..... doz. GON PACKS

Name.....

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Address.....

Name.....

Address.....

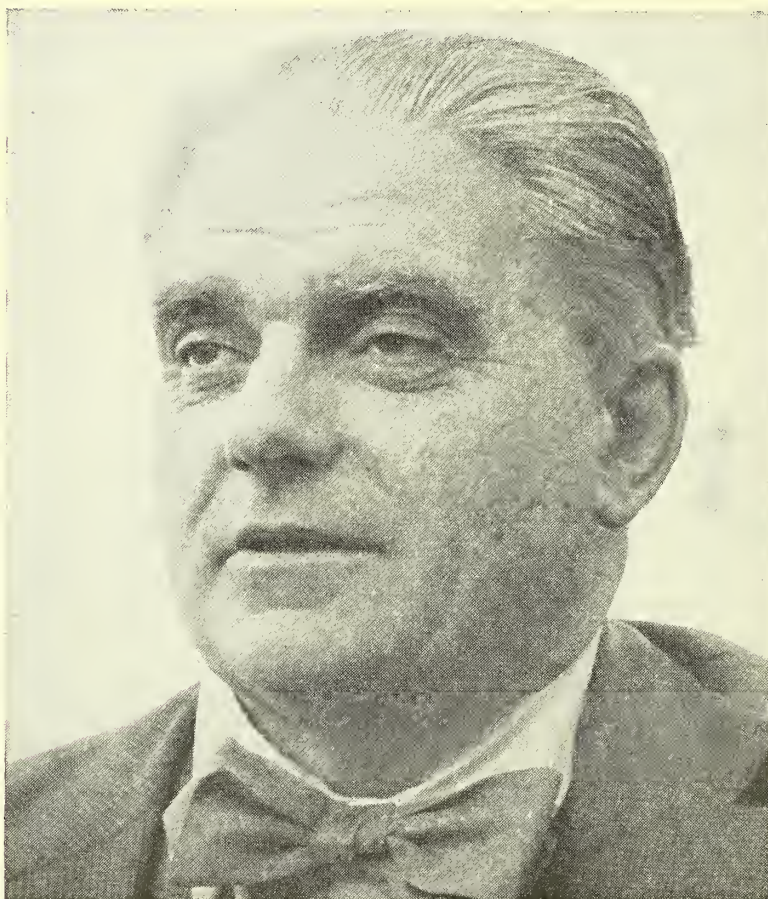
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# “BRITAIN’S DRUG BILL NOT EXCESSIVE”

## SAYS LORD BOOTHBY

PRICE OF MEDICAL CARE CONSTANT  
FOR FIFTY YEARS



Opening Winthrop House, the new Surbiton offices of Winthrop Group, Ltd., the Rt. Hon. Lord Boothby, K.B.E., L.L.D., spoke trenchantly on the subject of British expenditure on pharmaceutical benefits. He pointed out that the proportion of income per head of population spent on pharmaceutical services in the majority of countries which do not have a free health service is higher than in Britain. “This is true,” said Lord Boothby, “not only of the *total* expenditure on pharmaceutical benefits, but, in addition, the expenditure by the State or private insurance in these countries is also a higher percentage of per capita income than in Britain.”

### A MOST REMARKABLE FACT

Lord Boothby went on to discuss the question of drug costs. “We are told that it is necessary to curb the rising cost of drugs, yet in fact expenditure on drugs has always represented the same proportion of total National Health Service expenditure. This is true in spite of the enormous benefits from new, more complex, and therefore more costly drugs. At the present time about 3.7% of the national income is spent on the National Health Service. Going back over 50 years, to before the First World War, published figures show that this proportion has remained almost constant. This is a most remarkable fact when one considers the social and economic revolution which has occurred in the last half century.”

### LORD BOOTHBY LAUNCHES VIRUGON

At the end of the opening ceremony, Lord Boothby pressed a remote control button which set into motion machinery at the Winthrop Newcastle factory for the manufacture of Virugon.

A new preparation of the Bayer Products Division, Virugon is the first anti-viral synthetic. It will be available in Britain from November 1st, 1960, and is of proved value in the prophylaxis and treatment of influenza, measles, mumps, chicken pox and herpes zoster.

# A TREMENDOUS TRIO

## OF *Linc-o-Lin*

### PRODUCTS

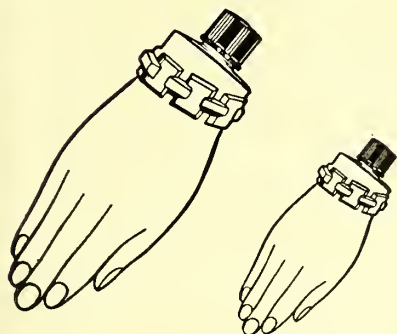


#### LINC-O-LIN Beer Shampoo

The genuine beer content in LINC-O-LIN Beer Shampoo brings out the richest tones in the dulllest hair, and gives 'body' and 'weight' to fine hair. Suitable for all types of hair, this is the shampoo that creates customer good-will.

The genuine Beer Shampoo with the 'best bitter' flavour in four fascinating packs:

- Box of 6 'Mognum' pocks (each containing over 20 shampoos) 16/- plus 4/- P. Tax (Retail 4/6 each)
- Box of 3 doz. single sachets 15/- plus 3/9 P. Tax (Retail 9½d. each)
- Box of 3 doz. Twin Pocks (two shampoos—"His" and "Hers") 20/- plus 5/- P. Tax (Retail 1/- each)
- Box of 1 doz. Baby Barrels (each containing four shampoos) 14/8 plus 3/8 P. Tax (Retail 2/3 each)



#### LINC-O-LIN Hand Cream

Something unique in packaging and in hand creams. Delightful 4 oz. and 1 oz. hand shaped packs in three lovely pastel shades. Your customers will see instant results after only one application of this wonderful cream with its fresh, clean perfume.

- Box of 1 doz. 4 oz. pocks. £1/8/0 plus 14/- P. Tax (Retail 4/11 each)
- Box of 3 doz. 1 oz. pocks. 25/- plus 12/6 P. Tax (Retail 1/6 each)
- Box of 1 doz. 4 oz. Refills. 18/- plus 9/- P. Tax (Retail 3/6 each)

PLEASE SEND FOR DETAILS OF THIS SEASON'S BEAUTIFUL GIFT PACK.



#### LINC-O-LIN Universal Hair Treatment

Never before has a hair treatment been so universal! Several functions performed in one application. Reconditions—stops breakage and splitting—restores elasticity—controls dandruff—restores overbleached, overpermed hair to silky suppleness. This delightfully perfumed Treatment is marketed in white polythene packs—enough for four applications.

- Box of 1 doz. 2 oz. bottles. 16/- plus 8/- P. Tax (Retail 2/9 each)

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## LIQUFRUTA ADVERTISING BEGINS NEXT WEEK

**SPECIAL NOTE:** Remember *Liqufruta* can be included in your special terms order for all products in the Sanitas Group.

The first of the new large space announcements for this well-known cough medicine is the starting point for a high pressure campaign reaching 230,000,000 readers of the National Press.

Are you ready for the demand that will follow — not only for initial sales, but for the steady repeats as customers find how efficacious *Liqufruta* can be in relieving colds and sore throats.

So look to your stocks, put up your display and let customers see for themselves that you have *Liqufruta* in stock.

# Liqufruta

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SANITAS GROUP SALES LIMITED



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## Get the EXTRA sales that pay— put Scentinel products on display



### SWISH

Toilet bowl cleanser and disinfectant, cleans with each flush. 1/6 complete, Refills 9d.



### MINOR

Fragrant chemical block in unbreakable holder with suction grip. 1/6 complete, Refills 9d.

### WHAM

Fragrant fly-spray and moth-proofing Aerosol 3/11. Squeeze bottle 3/6, Refill 1/6.



### QUIFF

Fragrant air-freshener and germicidal spray. Aerosol 3/11. Squeeze bottle 3/6 and 2/3, Refills 1/6 and 1/-.



Sell these and the rest of the range

Please send details of your FREE Counter Display Unit.

Name .....

Shop Name .....

Address.....

**New Hygiene Ltd., 266 HOLLOWAY RD., LONDON, N.7**

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**IF YOU ARE LOOKING FOR A TABLET MANUFACTURER TO HANDLE YOUR PRODUCT BE IT LARGE OR SMALL, IN THOUSANDS OR MILLIONS, WHY NOT**

**CONTACT ONE OF THE FOREMOST MAKERS WHO HAVE TAKEN PRIDE IN**

**MANUFACTURING TABLETS & PILLS FOR MANY YEARS**

**RICHARD DANIEL & SON, LTD. DERBY**

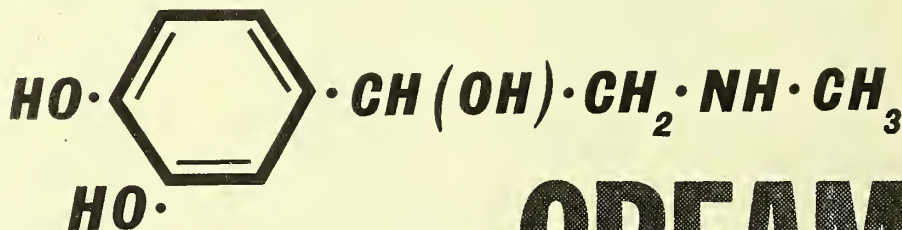
**Write us at Mansfield Road or ring Derby 40671 (Ten lines)**

# News for rheumatism sufferers means NEWS FOR YOU

The makers of Lloyd's Adrenaline Cream have already started their autumn and winter advertising campaign. This powerful campaign, centred on new American discoveries in the causes of rheumatism, began with a **full page** in the *Daily Herald* and the *Daily Sketch* and continues with big spaces in the *People*, the *News of the World* and other important papers.

- Past experience has taught that sales of Lloyd's Adrenaline Cream closely follow advertising.
- Lloyd's Adrenaline Cream already far outsells every other anti-rheumatism cream.
- Rheumatism is by far the most universal common complaint.
- Be sure that none of your customers are disappointed. Order a plentiful supply of Lloyd's Adrenaline Cream from your usual wholesaler.

## LLOYD'S



# CREAM

# NEW ERA LABORATORIES LTD.

announce the following price changes  
effective from the 1st November 1960

Product	Standard Wholesale Price per doz.	Purchase Tax per doz.	Retail Price Inc. Tax each
'ELASTO' Tablets	44/-	11/-	6/5
" "	176/-	44/-	25/8*
'NERVONE' Tablets	44/-	11/-	6/5
" "	110/-	27/6	16/-*
" "	176/-	44/-	25/8*
'ELASTO' NATURE SALVE	24/-	6/-	3/6
" " "	120/-	30/-	17/6*
N.E.T.C.O. 444 PILLS	32/-	8/-	4/8
'ZIEF' Tablets	68/8	17/2	10/-
" "	171/4	42/10	25/-*

\* Special Economy Pack to be retailed intact

## NEW ERA LABORATORIES LTD.

CECIL HOUSE · HOLBORN VIADUCT · LONDON, E.C.1 · CENTRAL 6778

**OLD SIZE PF1**

Introducing the *new* Philips "Photoflux" PF1 and PF1B flashbulbs - more convenient for your customers, more convenient for *you*. These smaller sizes are made possible by the new zirconium filling.

Price, performance exposures and cap fitting remain unchanged. You will find the new bulbs more compact for stocking and selling, and your customers will also appreciate the handier size. The popular Photoflux PF5's with a light output of 18,000 lumen-seconds are available as before.

**HERE'S THE NEW PF1**  
— SMALLER SIZE, SAME  
SUPERB PERFORMANCE

Supplied in sleeves of 5, or in standard boxes of 200 — 200 bulbs in a box that's only 7½ x 7½ x 4½

**PHILIPS PHOTOFLUX**  
PHILIPS ELECTRICAL LIMITED  
Century House · Shaftesbury Avenue · London WC2

to counterbalance

# the restricted diet

Many patients are consuming diets restricted in one way or another

- the low calorie diet of the obese patient
- the low salt diet of the hypertensive
- the low fibre diet of the dyspeptic
- the low fat diet of the atheromatous

Others restrict their food intake because of domestic, psychological or financial stresses.

All these are subject to the risk of malnutrition in its various aspects and the sequelae often bring such patients for medical advice.

**JUVEL** was designed to meet the vitamin needs of patients in any of the above categories. It contains both fat-soluble and water-soluble vitamins in concentrations high enough to counterbalance dietary shortages and to have a definite therapeutic effect. It is now available in liquid form as well as in tablets.

**JUVEL**  
now available in  
TABLETS & ELIXIR

*The daily dose of 1 tablet contains:—*

Vitamin A . . . . .	5,000 iu
Vitamin D . . . . .	500 iu
Vitamin B <sub>1</sub> . . . . .	2.5 mg
Riboflavine . . . . .	2.5 mg
Vitamin B <sub>6</sub> . . . . .	2.5 mg
Nicotinamide . . . . .	50 mg
d- $\gamma$ -tocopheryl acetate (Vitamin E) . . . . .	10 mg
Vitamin C . . . . .	50 mg

1 fl. oz. in Elixir form contains:
20,000 iu
2,000 iu
10 mg
10 mg
10 mg
200 mg
40 mg
200 mg

**FORMULA** The formula of 'JUVEL' has been designed in consideration of the known defects in the diets of many older patients. The vitamins chosen and the quantities given are related to needs as determined by dietary surveys and the known incidence of disease.

Tablets: Packs of 100 and 500—Basic Price to N.H.S. 15/- and 65/-. Elixir: 6 fl. ozs.—Basic Price to N.H.S. 4/8.



A PRODUCT OF VITAMINS LIMITED, UPPER MALL, LONDON, W.8

**NEW PRODUCT**

**CAPRITON**  
TRADE MARK  
**T A B L E T S**

**decongestant · anti-allergic · antipyretic**

- ▶ relieve nasal congestion in colds, sinusitis and rhinitis.
- ▶ avoid the need for supplementary topical therapy with nasal drops, sprays or inhalants.
- ▶ no rebound congestion; no mucosal damage.
- ▶ relieve lachrymation and rhinorrhœa; alleviate sneezing.
- ▶ promptly permit the patient to breathe freely again.

*Each tablet contains:—*

PIRITON Maleate (chlorpheniramine maleate B.P.C.)	2mg.
PHENYLEPHRINE HYDROCHLORIDE B.P.	10mg.
ASPIRIN B.P.	230mg.
PHENACETIN B.P.	100mg.
CAFFEINE B.P.	30mg.

[PART I, SCHEDULE 7 (1)]

**PRESENTATION**

In tubes of 12 tablets; outered in cartons containing 24 tubes.

**RETAIL PRICE** (inc. P.T.) 4/6 per tube.  
**TRADE PRICE** 2/10, P.T. 8½d.

MANUFACTURED IN ENGLAND BY

**ALLEN & HANBURY'S LTD LONDON E2**

# **Certor** REGD. units make dispensing so much easier

An efficient packaging system plays an important part in any speedy, well-organised dispensing service—as the modern pharmacist is quick to realise. And efficient packaging demands Certor dispensers—now rapidly becoming standard equipment in modern pharmacies.

Certor dispensers ensure that all your packing, wrapping and capping materials are there at your fingertips, conveniently arranged in immediately identifiable sizes. Parchment, satchels, cartons, screw caps—all these Certor products have their own specially designed Certor dispenser with separate compartments for the complete range of sizes. Certor dispensers are compact, convenient, strongly made and well finished. They are used by British Schools of Pharmacy.

MACDONALD & SON LTD · MANCHESTER & LONDON

PORTLAND MILL · ASHTON-UNDER-LYNE · LANCS · TEL: ASHTON-UNDER-LYNE 4422

25 HOLYWELL ROW · LONDON E.C.2 · TEL: BISHOPSGATE 4809





## Certor Parchment Dispenser

Seven graduated compartments to hold the complete range of Certor pharmaceutical dispensing parchment—480 sheets of each size; powder, 1 oz., 2 oz., 3-4 oz., 6 oz., 8-10 oz. and 12-16 oz.



## Certor Screw Cap Dispenser

*Registered design No. 878768*

Five large compartments to hold the complete range of Certor screw caps—adequate to cap the complete range of dispensing, packing and tablet bottles.



## Certor Carton Dispenser

Five compartments to hold a comprehensive range of Certor dispensing cartons—sizes 1, 2, 3, 4 and 5. (These sizes are available with low cost own-name printing.) Large sizes of cartons for tablet foils are supplied.



# Monil

# Monil

# Monil

# Monil

## COLOUR SHAMPOO

Available in 17 wonderful colours. MONIL is particularly famous for pure brown and black shades which give a truly natural beauty.



## IS IN DEMAND

For years a favourite in the smartest hairdressing salons, MONIL is now available to every woman! This is good news for them — and good news for YOU!



## SELLS ON SIGHT

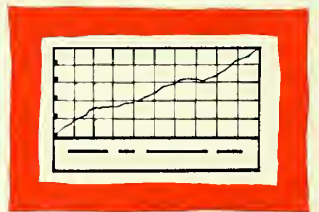
The attractive MONIL display pack means something to a woman. She sees it — she recognises it — she buys it!



## MAKES MONEY *FOR YOU!*

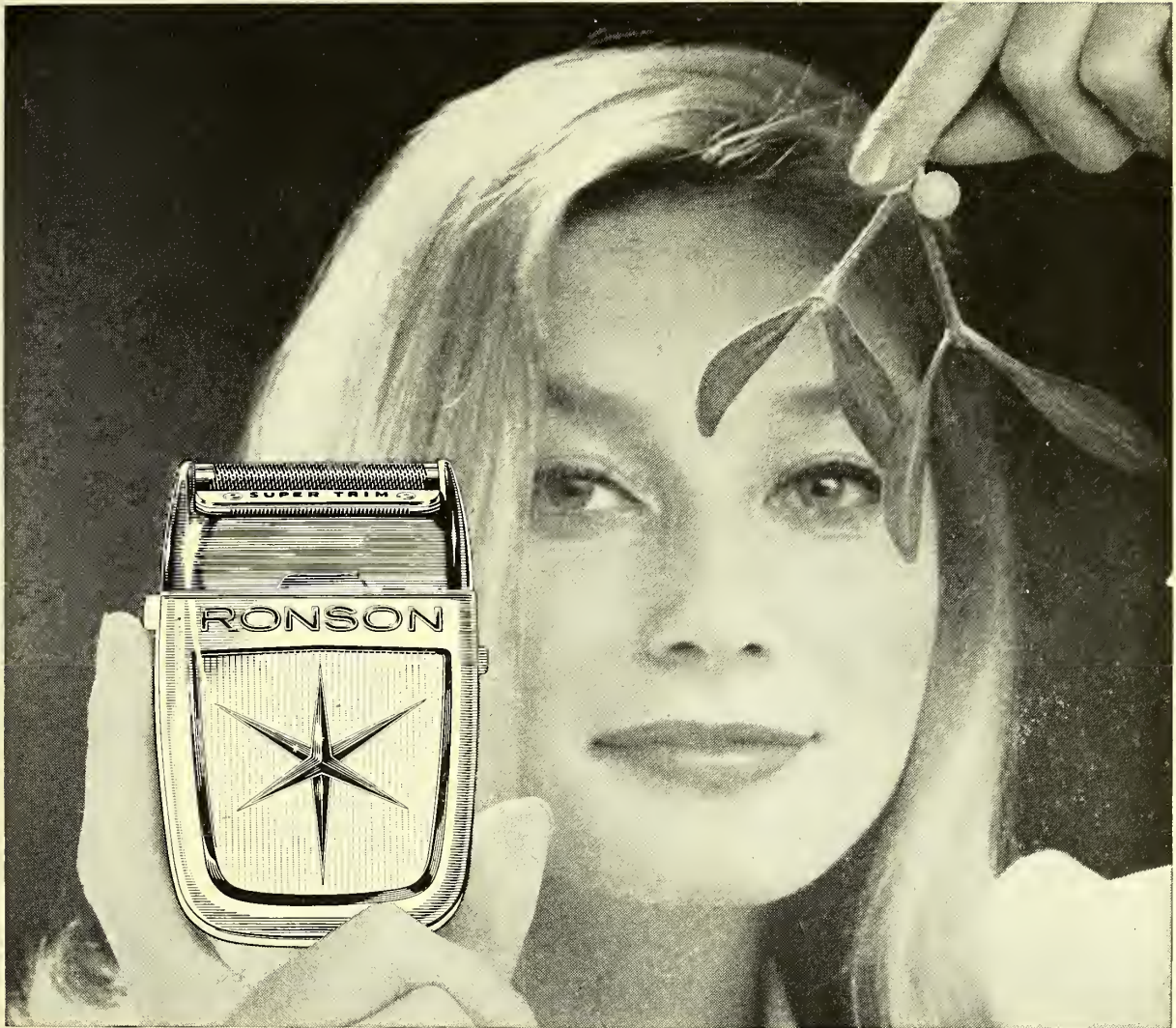
There's a handsome profit margin for you on every MONIL colour shampoo that you sell — and you can rely on brisk sales and steady repeat business.

Retail Price 4/- per bottle  
24/- per doz. (plus P.T.)  
Carriage paid on 5 doz.



Order from your usual wholesaler  
or in difficulty write to:

**MONIL LTD. Hunmanby, Filey, Yorks.**



## GREAT CHRISTMAS CAMPAIGN STARS THE NEW RONSON C·F·L

**PRESS** The new Ronson C·F·L is far and away the most handsome shaver on the market, and the big-space advertisements now appearing in all the popular Sunday papers are designed to show your customers just that. These advertisements will continue right through to December, with *pressure* building up as Christmas approaches. In addition there will be a special 6-page Christmas advertisement in the Reader's Digest.

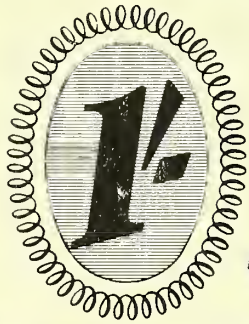
**TV** The television campaign is concentrated into the four weeks before Christmas. During that time a 30-second commercial, which brilliantly emphasises the gift-appeal of the C·F·L, will be transmitted from all stations in the U.K.

**DISPLAY** To help you make the most of all this, there are eye-catching display crowners, box-sleeves and window-stickers. Use them to give *your* display a striking Christmas appeal.

Stock up now for a best-ever Christmas with the new Ronson C·F·L

Ronson Products Ltd., Leatherhead, Surrey · Telephone: Leatherhead 4444

# Big winter promotion



**TAKE THIS COUPON TO YOUR SHOP**

This coupon is valid towards the purchase of COOPER'S FRESH-AIRE before Nov. 30th.

COOPER'S representative will give 50% cash against this coupon provided it has been tendered in part-payment for COOPER'S FRESH-AIRE before Nov. 30th.

**SPECIMEN**

**4,800,000**  
customers will get this coupon in the T.V. Press

**16,000,000**

Viewers will see a total of more than 200 Commercials over the entire T.V. Network—plus follow-up support



**Cooper's aerosols**

# Fresh-air by Cooper's

Now Cooper's again lead the way... with a WINTER promotion for FRESH-AIRE—a coupon advertisement in all the T.V. magazines in all T.V. areas, so that your customers can buy

**FRESH-AIRE at 1/- OFF**

**OFFER OPENS NOV. 3rd**

**CLOSES NOV. 30th**

Our representative will redeem the coupon for cash on his next call

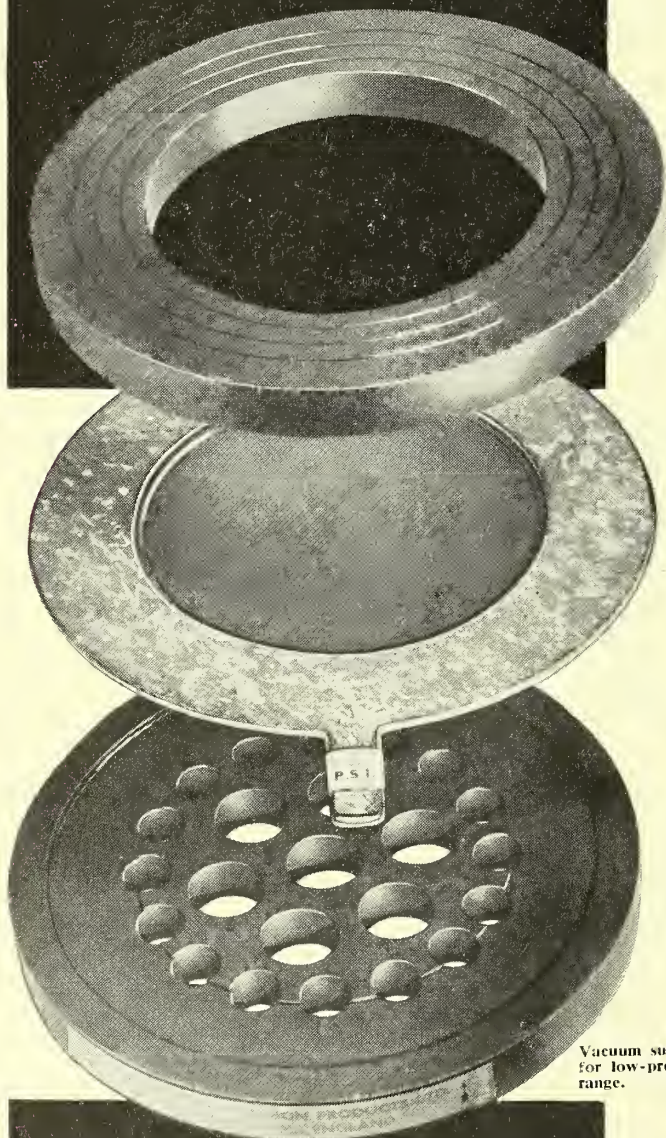
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**DISPLAY NOW  
for year-round sales**

This unique winter Fresh-air offer will spearhead a year-round movement of other non-seasonal COOPER'S aerosols—WINDOW CLEANER and DRY CLEANER.

**mean aerosales!**

# Delanium GRAPHITE



Vacuum support  
for low-pressure  
range.

# BURSTING DISCS

LOW AND  
MEDIUM PRESSURES

"Delanium" Graphite Bursting Discs are manufactured in two ranges, a LOW PRESSURE range covering pressures from 1-4 psig, and a MEDIUM PRESSURE range covering 5-400 psig, with orifice diameters of 2 in.-12 in. and 1 in.-12 in. respectively.

"Delanium" bursting disc assemblies are completely resistant to the corrosive attack of most acids, alkalis and solvents at temperatures up to 160°C. Manufactured from a high-quality graphite, the discs are precision ground to close tolerances and subjected to rigorous permeability and bursting-pressure tests to ensure accuracy of burst. The discs will withstand thousands of pressure applications at 75% of stated burst pressure without loss of accuracy. The design of the discs and vacuum supports assures ample relief opening on rupture for the rapid escape of excess pressures.

Replacement discs are quick and easy to install and for standard pressures are readily available from stock. Holders and vacuum supports costs are generally initial costs only and replacement discs are inexpensive.

RANGE OF DISCS AND PRESSURES	
Orifice Diameter	Bursting Pressure psig
1 in.	20-400
2 in.	4-200
3 in.	3-150
4 in.	2-100
6 in.	1-75
8 in.	1-40
10 in.	1-30
12 in.*	1-25

\* Larger diameter discs on application.

## Powell Duffryn Carbon Products Ltd



designers and manufacturers of chemical plant  
in carbon and graphite

SPRINGFIELD ROAD,  
HAYES, MIDDLESEX

Telephone: HAYES 3994

Telegrams: CARBONACES, HAYES

# cremalgin

**rubefacient  
cream**

1 oz. tubes trade price 21/- doz. *Plus P.T.*  
retail price 3/1 each  
1 lb. jars trade price 19/6 each *Plus P.T.*

# PARABAL

**detoxicated  
phenobarbitone—  
Schedule IV**

Bottles 100 tablets  
trade price 7/6 each *Plus P.T.*  
Bottles 500 tablets  
trade price 27/6 each *Plus P.T.*

# TABALGIN

**0.5 g. paracetamol  
analgesic tablets**

Bottles 100 tablets  
trade price 75/- doz.  
Bottles 500 tablets  
trade price 27/9 each

**TABALGIN brand  
paracetamol ELIXIR**

4 oz. bottle trade price 45/- doz.  
retail price 5/8

WEST PHARMACEUTICAL CO. LTD



9 Palmeira Mansions  
Church Road  
Hove 3 Sussex  
Telephone Hove 77215/6



# THE CHEMIST AND DRUGGIST

ESTABLISHED 1859

The weekly newspaper for pharmacy and  
all sections of the drug, pharmaceutical and  
fine chemical, cosmetic, and allied industries

*Official organ of the Pharmaceutical Society of Ireland  
and the Pharmaceutical Society of Northern Ireland*

Volume 174

October 29, 1960

No. 4211

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PUBLISHED BY

MORGAN BROTHERS (PUBLISHERS), LTD.,  
at 28 Essex Street, Strand, London, W.C.2

Telephone: Central 6565

Telegrams: Chemicus, Estrand, London

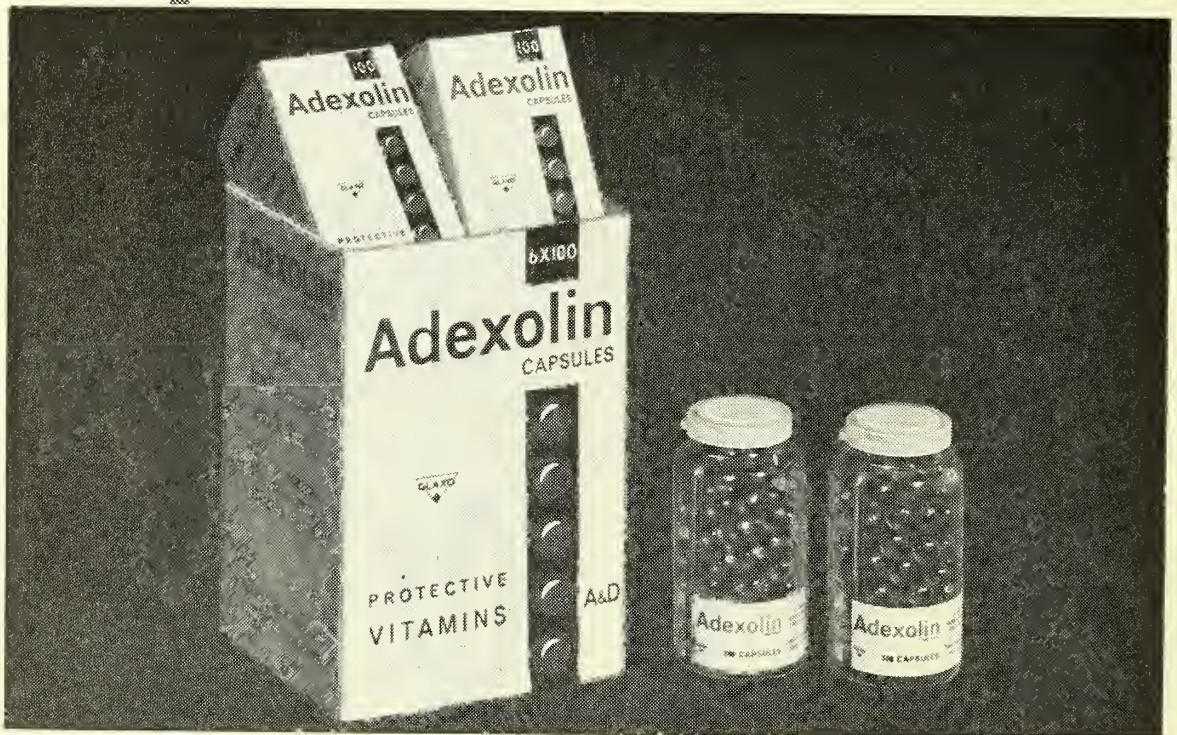
WOLVERHAMPTON: 89 Woodland Avenue, Tettenham Wood.  
GLASGOW: 160 Nether Auldhouse Road, S.3. Phone: Langside 2679.  
LEEDS, 16: 32 Wynford Rise, West Park. Phone: Leeds 67 8438.

## ANNUAL SUBSCRIPTION

which includes The Chemist and Druggist Diary and  
Year Book, £2 10s. Single copies one shilling each.

# NEW LOOK PACKS

## for ADEXOLIN capsules



Specially designed to be a credit to your counters, the new bottles, cartons and display outers for Adexolin capsules present a bright, clean, streamlined appearance. They're easy on the eye—and on your counter space too.

Every capsule still contains 6,000 units of vitamin A and 1,000 units of vitamin D—both British made by Glaxo.

### IT'S CHEAPER BUY THE DOZEN

	RETAIL PRICE	USUAL TRADE PRICE	SPECIAL 'PARCEL' RATE
<i>Adexolin parcel No. 1</i> 2 doz. × 25 capsules	2/- each (48/-)	36/-	32/-
<i>Adexolin parcel No. 2</i> 1 doz. × 100 capsules	6/- each (72/-)	54/-	48/-

Adexolin is a Glaxo trade mark.







**BROXIL** - THE HIGH PEAK  
REGD. TRADE MARK  
**PENICILLIN FOR BETTER  
 CLINICAL RESULTS**

'In short, with the possible exception of bacterial endocarditis, "broxil" should be given when previously penicillin G or V has been used.' *Practitioner* (1960) 184, 793.

Broxil, the penicillin of choice, is now available in tablet and syrup forms for convenient oral administration.

**BROXIL TABLETS** available in strengths of 125 and 250 mg. **BROXIL SYRUP**—bottles of 60 ml. when dispensed (each 5 ml. contains 125 mg.).

Broxil is the potassium salt of 6-(alpha-phenoxypionamido) penicillanic acid.



**BEECHAM RESEARCH Laboratories LTD · BRENTFORD · ENGLAND**



**when you've made  
your plans**

**let us make  
your products**



**ARTHUR H. COX & CO. LTD**

Pharmaceutical and medicinal preparations of the highest quality

**BRIGHTON · ENGLAND**

## Winthrop Chairman on "Obligation to Make Profits"

In welcoming Lord Boothby, the Chairman of Winthrop Group Ltd., Mr. L. M. Spalton, B.Pharm., M.P.S., said: "The pharmaceutical industry is a free enterprise institution which to survive has an obligation to make profits, and whose members compete strenuously one with another. They compete to find the next advance in therapeutics, and their fine record is so well known to you that I will not repeat it here. They compete to assist the medical profession in any and every way it is within their power or ingenuity to do. They compete to sell and to earn foreign currency for Britain. They compete continuously against themselves and obsolescence. For so dynamic is this industrial quest for knowledge that few drugs can anticipate widespread use for more than about five years."

Mr. Spalton went on to point out that it was time that the contributions of the pharmaceutical in-

dustry were more generally recognised and that the competitive circumstances with which it had to grapple—and incidentally the advantages that competition brought—were seen in proper perspective.

## QUOTES

### Answering the Prime Minister's call

"Four years ago we built in Newcastle-upon-Tyne the most highly mechanized pharmaceutical factory to be completed in post-war Britain. Today nearly 50% of the output of that factory goes overseas. Our pharmaceutical business in Britain is the fourth largest. The Prime Minister recently called for a great band of merchant adventurers to sell British goods overseas. I believe that we in Winthrop have already begun to act in the spirit and the letter of that call."

## Transcending National Barriers

"Why do our international company of people find co-operation possible, where elsewhere it is so difficult to obtain? I believe this happy state is due to their possession of a common purpose which transcends national barriers, and the job satisfaction that comes from rendering a service of immense value to their fellow men."

### Plaquenil breaks through the Iron Curtain

"Winthrop people know no barrier of nationality, race, creed, or colour, save the Iron Curtain. And whilst that barrier at present resists Winthrop people, it is not impervious to Winthrop products. Today Plaquenil, our latest contribution to the treatment of rheumatoid arthritis, is being exported to treat patients in Czechoslovakia and Poland, and is under clinical evaluation in Moscow."

## THE WINTHROP GROUP

Winthrop Group Ltd. comprises companies and divisions operating throughout Western Europe which, individually and collectively, are concerned with the discovery, development, manufacture and distribution of pharmaceutical products. In this country the Group includes Bayer Products and Winthrop Laboratories. Winthrop House is the new British headquarters.

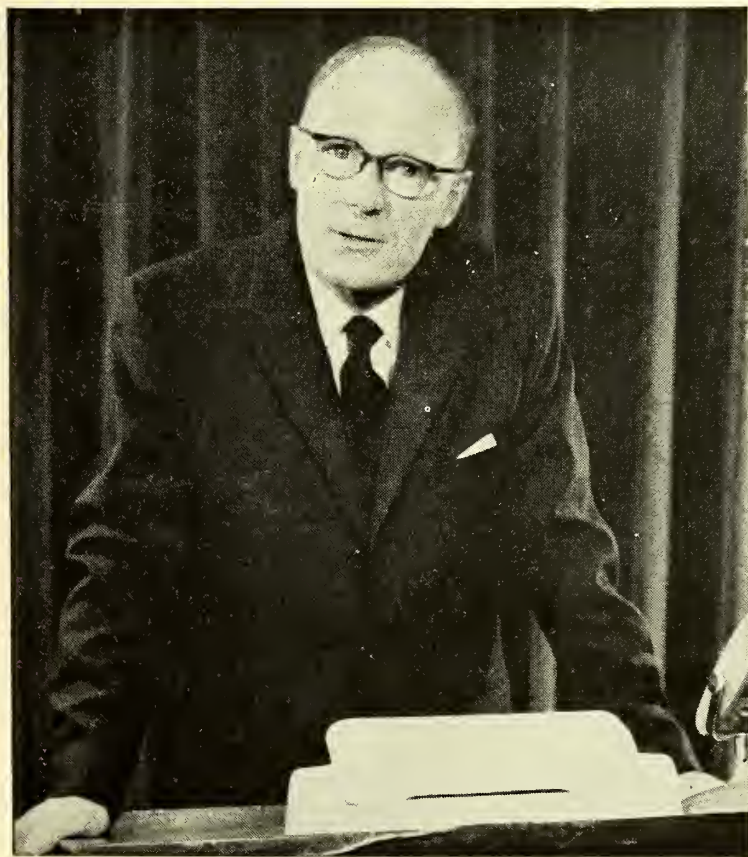
## CONTROVERSIAL MEDICAL EXHIBITION EXTENDED

"Medicine Men of Today", the exhibition originally designed to mark the opening of Winthrop Group's new headquarters at Surbiton - upon - Thames, has aroused so much comment, and attendance is such that it is now being extended until Friday, the 25th of November.

The hours of the exhibition are :  
Mon.—Thur. and Sat. : 11 - 8.30 ;  
Fri. : 11-4. Travelling time from Waterloo station is about 15 minutes.

Pharmacists and their friends are warmly invited to visit the exhibition.

Issued by **Bayer Products**  
Division of Winthrop Group Ltd.,  
Surbiton-upon-Thames, Surrey.



# VARIDERM

## OINTMENT

For the treatment of  
VARICOSE ULCERS · BED SORES

### Basic NHS Price

50 G tube  
7/4d. P.T. 1/10d.

100 G tube  
11/4d. P.T. 2/10d.

PAINES & BYRNE LTD · GREENFORD · MIDDX.

## Accidents *will happen..*

As a doctor he is constantly reminded of the risks we all take in life. That is why he has just fixed up a policy with Confederation Life. Combining Life



Accident and Disability cover, this unique plan provides protection for his young wife and the son for whom they have such ambitious plans.

May we send you details of the benefits, safeguards and costs of Confederation Life policies for the young professional man? After all, accidents *will* happen.



Write now to:—

### Confederation Life

ASSOCIATION

(Incorporated in Canada in 1871 as a Limited Company).  
Assets over £145,000,000.

J. H. B. Clover, Manager for the United Kingdom,  
CONFEDERATION LIFE ASSOCIATION,  
18 Park Lane, London, W.1.

Please send without obligation, details of your Combined  
LIFE-ACCIDENT-DISABILITY Plan.

Name .....

Address .....

C.D.2

Date of Birth .....

BOTANICALS  
CHEMICALS  
GUMS



ESSENTIAL OILS  
SPICES  
WAXES



## MENTHOL

Brazilian  
Formosan  
Chinese  
Japanese



## PEPPERMINT OIL

Formosan  
Brazilian



## JOHN KELLYS (LONDON) LTD.

24 OLD BROAD STREET, E.C.2

Telephone: LONDON Wall 6585 (4 lines)  
Telegrams: "Ergotine, Stock, London"  
Telex: 28760

NEW YORK

HAMBURG

# MATTHEWS AND WILSON

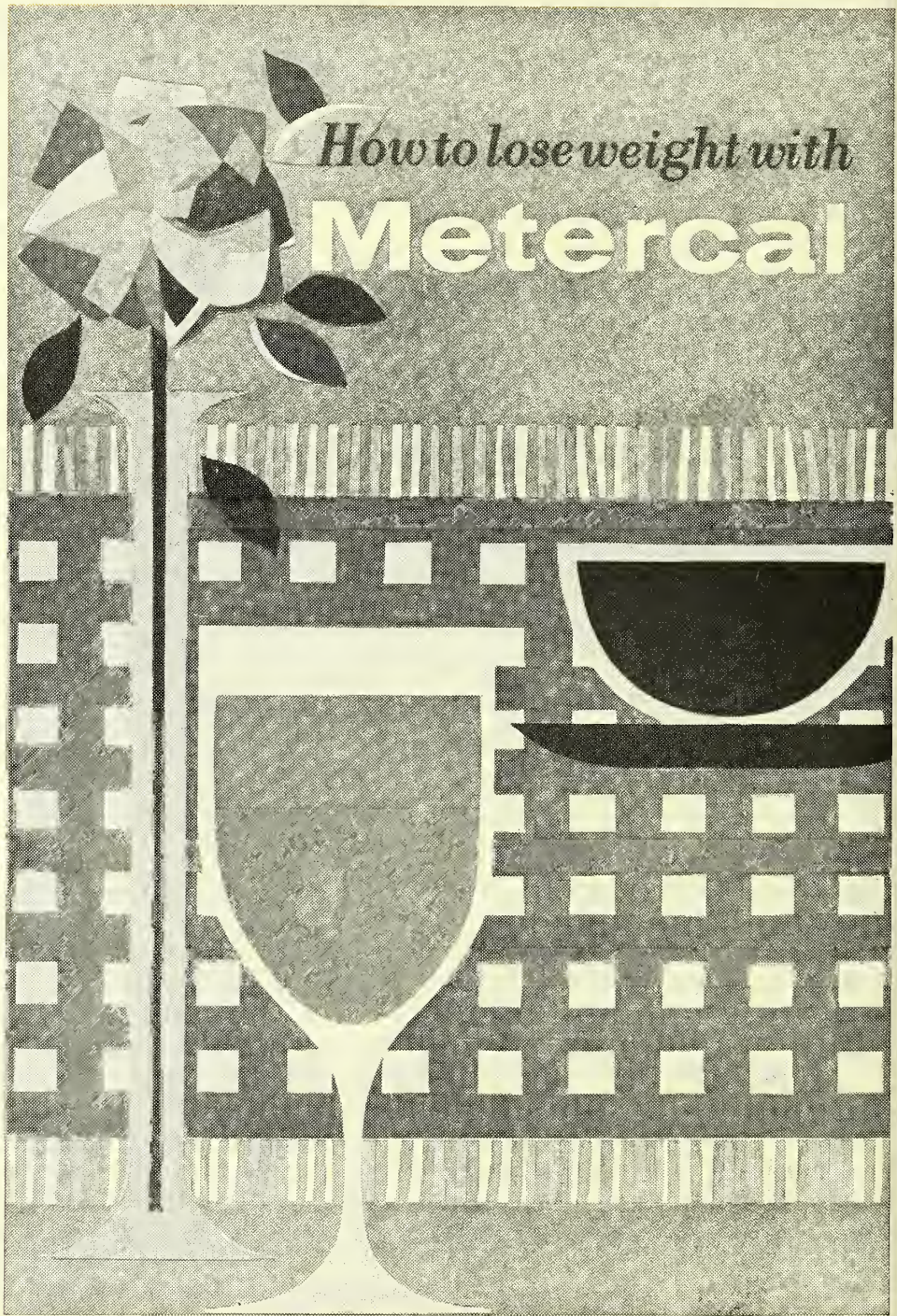
For Your  
**TABLETS**

We have long experience in the  
**FORMULATION AND MANUFACTURE**  
of medicinal tablets of all types for  
pharmaceutical organisations, hospital  
authorities and proprietary houses,  
both at home and for most countries  
of the world—All standard B.P., B.P.C.,  
N.F. Tablets are stocked for  
prompt delivery

*Customer's Materials Processed  
Home and Export Inquiries Invited*

**MATTHEWS & WILSON LTD.**

Larkhall Works, Morrish Road, London, S.W.2. Tel: TULSE HILL 5881/2



# All about Metercal

*The new natural way  
of losing weight*

## Free—FOR YOUR CUSTOMERS

Mead Johnson are offering this free 8-page booklet, which contains all the details and advice your customers will require concerning Metercal—a new concept in weight control. Metercal is itself a food—it nourishes, and at the same time reduces weight. Details include a calorie chart and menu suggestions for those on a dieting programme.

## Free—FOR YOU

This booklet will give double benefit. It will enable you to give a swift, yet comprehensive answer to the ever-increasing number of enquiries from your customers, who will be seeing frequent advertisements for Metercal in the National Press, in magazines, and on TV.

It will also give potential customers complete assurance as to what Metercal *is* and *does*.

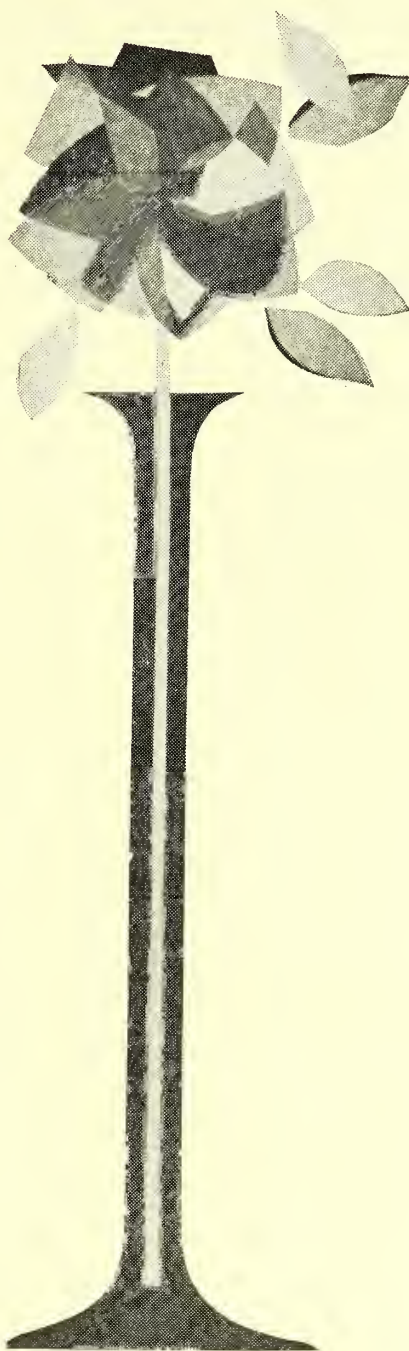
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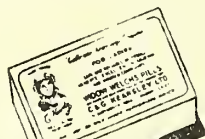


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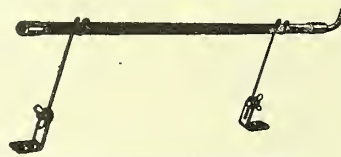
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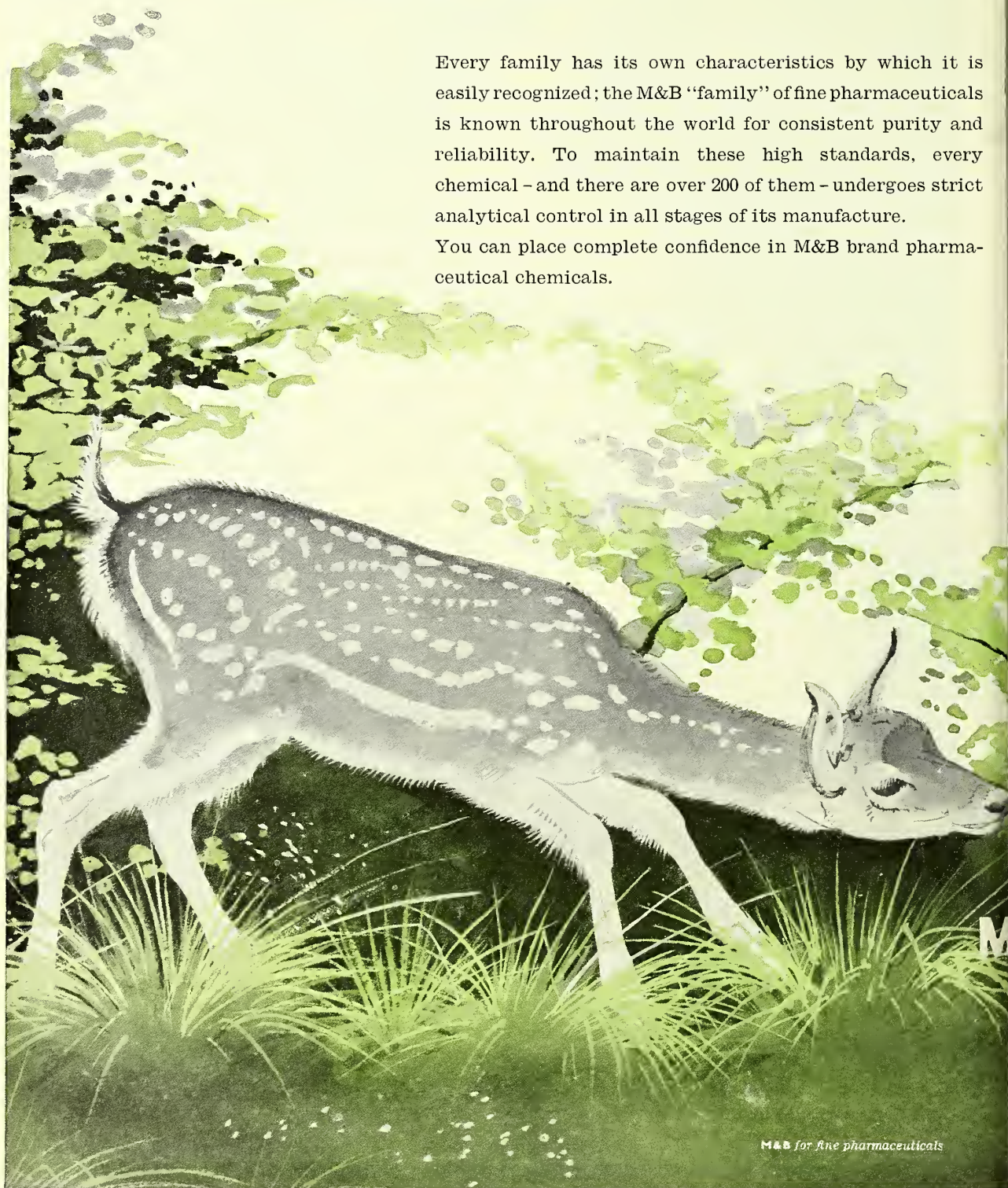
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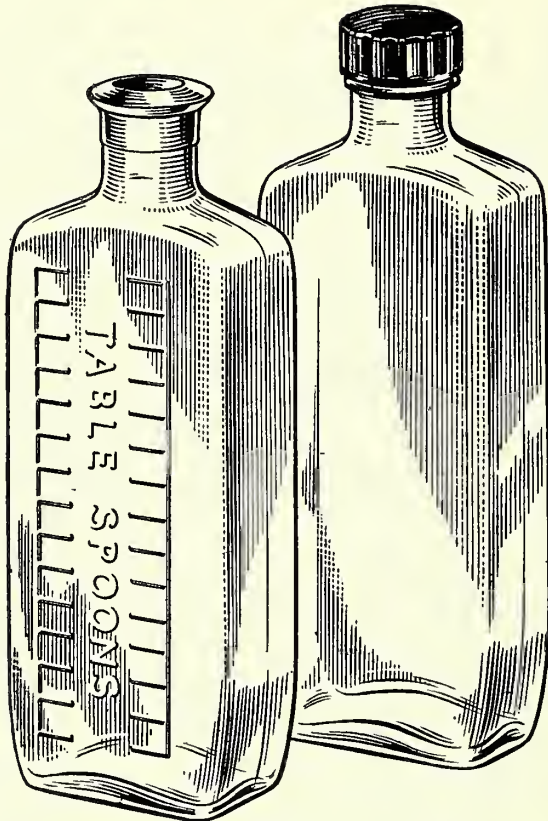
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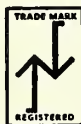


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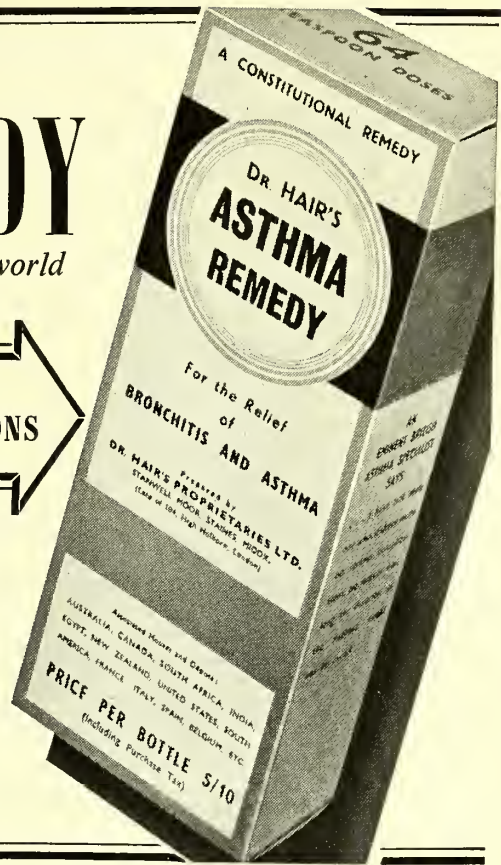
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C 3243

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**HELENA RUBINSTEIN** requires a Travelling Sales Representative (man or woman) to call on their selected agents in the Birmingham, Leicester, Oxford area. Previous Cosmetic experience essential. Must be over 25 and reside on territory. Current driving licence, Car provided. An excellent opportunity of making a career in Cosmetics. Write in confidence giving fullest details of experience, education, career to date and present salary, to Sales Manager, Helena Rubinstein, Ltd., 3 Grafton Street, London, W.1. C 5995

**MEDICAL REPRESENTATIVES** are required for the following areas: (1) London (North of Thames); (2) Kent; (3) Lancs (two representatives required); (4) Surrey, Berks and part Hants. Preference will be given to experienced gentlemen, and we have no age limit in the upper bracket. Write stating experience in medical representation, Carlton Laboratories (Southern), Ltd., 2 Norfolk Square, Brighton, Sussex. C 3232

**REPRESENTATIVE REQUIRED** for wholesale chemists' sundries house in the Central Midlands area. This is a permanent position, and an excellent opportunity for an energetic man with an existing connection in this area. Apply with full details. Box C 5982.

## THOMAS KERFOOT & CO. LTD.

### HAVE A VACANCY

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Please apply in strict confidence to

### THE SALES MANAGER

VALE OF BARDSLEY, ASHTON-U-LYNE, LANCs

C 5985

### REPRESENTATIVE REQUIRED FOR YORKSHIRE

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**REPRESENTATIVE.** Weddel Pharmaceuticals have vacancy for a fully experienced medical representative in Scotland to call on doctors, hospitals and retail chemists, promoting the sale of ethical products. This is a good opportunity in a progressive and expanding company whose products are well accepted. Residence in or near Glasgow an advantage. Salary, expenses, company car, and non-contributory pension scheme. Write in confidence stating age and details of experience to Staff Manager, 14 West Smithfield, E.C.1. C 5997

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**AGENTS WANTED** covering South Wales, Home Counties, Greater London, Birmingham and Wolverhampton areas. Must have live connections. Highest commission offered if you can sell the cheapest complete range of household aerosols marketed in Great Britain today. Write to Sales Director, D.C.M.C., Ltd., 2A Parkhurst Road, London, N.7. C 5989

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C 5960

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The salary will be in keeping with qualifications and experience.

Applications with relevant details should be sent to:

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Evans Medical Limited,  
LIVERPOOL 24.**

C 5996

**Agents Wanted—Continued**

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Phone: Blackfriars 9432 (5 lines)  
Bankers: Mildand Bank, Ltd. C 438

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Health Committee invite quotations for the supply of drugs, chemicals and medical sundries for the City Health Centres, etc., for the twelve months commencing 1st January, 1961. Forms of tender from Medical Officer of Health, Central Health Clinic, G.P.O. Box No. 201, Tower Hill, Bristol, 2, returnable in a plain sealed envelope by 10 a.m., 19th November, superscribed to show goods tendered for, but with no name or mark indicating sender. Lowest or any tender not necessarily accepted. C 5980

**DISTRIBUTORS WANTED**

**DISTRIBUTORS** are required in U.K. for ethical preparations. At present some small distribution has taken place (which will be handed over to successful firm) especially in the South of England. Only firms who are able and willing to undertake this type of work should apply. Box C 3246.

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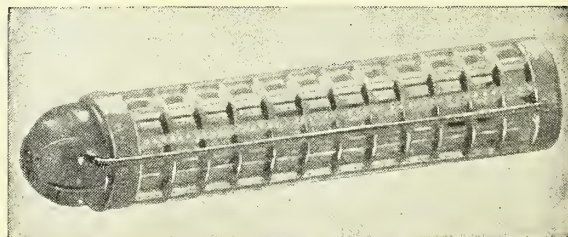
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# QUININE



Reproduction of an engraving in Weddell's "Histoire naturelle des Quinquinas," 1849. Bark-peeling in the Forests of Carabaya in Peru (the Valley of San Juan del Oro). One of the cascarrilleros, or barkers, is engaged in barking a felled stem; two others are piling the bark in square heaps to flatten and dry it: while a fourth is seen in the distance carrying a load of the dried material on his back to the camp. By kind permission of H. A. Churchill Ltd., publishers of the Textbook of Pharmacognosy by T. E. Wallis.

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